

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 765.—Vol. XX.]

LONDON, SATURDAY, APRIL 20, 1850.

[PRICE 6D.]

YORKSHIRE.—On WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, and MONDAY, April 24, 25, 26, 27, and 28, 1850.

To Railway Contractors and Proprietors, Timber Merchants, Builders, Miners, Engineers, Iron Founders, Carriers, Brokers, Smiths, and others.—Very Important Sale of all the Extensive and Valuable Materials, Plant, Steam-Engines, Canal Boats, Trucks, Implements, Rails, Tools, Machinery, and other property lately used in the formation and construction of a work of great magnitude and mechanical skill, known as the far-famed Standedge Tunnel, upon the Manchester and Huddersfield Branch of the London and North-Western Railway.

MR. WHEATLEY KIRK has the pleasure to announce, that he is honoured with instructions from Messrs. Nicholson, Esq., the eminent contractor, who has finished his contract, to SELL, BY AUCTION, on Wednesday, Thursday, Friday, Saturday, and Monday, April 24th, 25th, 26th, 27th, and 28th, 1850, all the VALUABLE RAILWAY PLANT, MATERIALS, &c.

used in the CONSTRUCTION and COMPLETION of STANDEDGE TUNNEL, in MARSDEN, and the adjoining RAILWAY WORKS, amongst which may be enumerated—Five 20-horse power HIGH-PRESSURE STEAM-ENGINES. These engines have all wrought-iron axles, and capable of being made from 15 or 20 horse power, with an extra cylinder. No. 1 engine has a 20-horse boiler; Nos. 2, 3, 4, and 5, have two boilers each, 24 ft. long, 6 ft. diameter, and circular ends, all in excellent working condition, and nearly new. Also one 12-horse power high-pressure steam-engine, which has a capital mortar-mill, double rollers, revolving iron pans, and saw-mill attached; nearly 400 tons of light and strong temporary rails, chairs, excellent 3-inch capstan ropes, 300 yards flat ropes; large quantity of scrap-iron, of excellent quality; 19 canal boats; a large quantity of Messrs. oak, and elm timber; scantlings, planks, prop wood, sleepers, lagging, broken-up timber; oak, larch, and other timber in the round; balks, a great number of centres, of different spans, for arches, tunnels, and culverts; five sets of capital head gears; capital weighing machine, to weigh nine tons, by Kitchen and Co.'s 3000 yards of guide rods, of the best quality of iron; wheelbarrows, large and small cranes, fire-grates, 19 smiths' anvils, several hundred waggon wheels, 30 turn-tables, pile engine, double speed and single purchase cranes, cast-iron pumps, five capstans, of the best make and quality; folding doors, pair of large pulley wheels, with about 500 yards of half-inch chain; cranes, a great number of striking hammers, quarry and mining picks, buckling, crab, and other chains, pulleys, vices, tongs; 700 drills, of the best iron, and steels with the best steel; mallets, anvils, smiths' bellows, both flat and cylindrical; scales, oil cistern and pump, a new six-inch waggon spring-car, two strong carts, excellent white-chapel, pig, harness, bay mare, cart harness, patent shaft engines, and a great variety of valuable effects.

Detailed particulars are being prepared in catalogues, which may be obtained, five days prior to the sale, at the offices of the auctioneer, 66, Cross-street, King-street, in Manchester. Catalogues will also be forwarded to gentlemen at a distance, upon receipt of six postage stamps.

P.S.—The principal plant is within five minutes' walk of the Marsden Station, and also adjoins the canal and turnpike road, which will render the goods easy to transit.

ORDER OF SALE—VIZ:—

First Day.—Part timber, sleepers, waggon, part of smiths' shops, wrought and cast metal, five canal boats, &c.

Second Day.—Part timber, part of smiths' shops, crabs, chains, wrought and cast metal, bay mare, white-chapel, pig, waggon, carts, harness, shaft engines, &c.

Third Day.—Part timber, stores, tools, turn-tables, heavy implements, weighing machine, waggon, rails, crabs, &c.

Fourth Day.—This day's sale will commence at Woolroad, about five minutes' walk from the Saddleworth station—consequently, parties coming by rail must alight at this station. The order of selling will be 14 canal boats, five 20-horse power steam-engines, one ditto, 12-horse power, with mortar-mill, engine-houses, sheds, buildings, capstans, guide-rod, ropes, &c.

Fifth Day.—Remainder of timber, wrought iron, scrap iron, bars, tools, stores, and miscellaneous effects.

The morning trains leave Manchester at 8 45 and 10 30 A.M., and Leeds at 9 30 and 10 45 A.M. The sale will commence each morning at a few minutes after Eleven o'clock, to give time for the arrival of the trains from Manchester, Leeds, Birmingham, Sheffield, Huddersfield, Bolton, &c., which stop at Marsden station.

TO CAPITALISTS.—FOR SALE, a most valuable FREEHOLD PROPERTY, called the DARLSTON COAL MINES, situated at EXHALL, near Coventry, WARWICKSHIRE, consisting of ONE HUNDRED ACRES, or thereabouts, containing both COAL and IRONSTONE. This coal ground offers abundant resources for a first-rate colliery; it adjoins several collieries which are in great activity; the supply of coals being quite unequal to the demand. The Coventry and Nuneaton Railway runs over a corner of the ground, thereby affording locomotive carriage to all parts of the kingdom.

This property offers a very fair investment to capitalists, or for a public company, and the proprietor will render every facility to a purchaser, by leaving the greater part of the purchase-money on mortgage, if required; or in case of a public company, he would take a royalty on the proceeds of the mines.

References may be made to Messrs. Field, Son, and Wood, stockbrokers, Warford-cour, Throghmorton-street, and to Messrs. Ellis and Son, estate agents, No. 36, Fenchurch-street, London.

A plan of the ground, with further particulars, may be obtained by applying (by letter, post-paid) to Mr. George Fowler, No. 9, Lincoln's Inn-fields, London.

FOR SALE, OR LEASE.—THE YORK AND CARLETON MINING COMPANY will SELL, OR LEASE, on moderate terms, THREE several MINING LOTS, 3 miles square each, for the term of 24 years, on each of which there is an abundance of RED and BROWN HEMATITE ORE, yielding from 30 to 50 per cent. of a superior quality of iron; the ore is subject to a lordship of 5 per cent. to the Crown on its value before being quarried; there is also plenty of WOOD and LIMESTONE in the immediate vicinity of the said lots. There is also a WATER POWER on each lot, sufficient to drive all the machinery necessary for carrying on the manufacturing of iron. Also, a EAST of a MINING LOT, for a term of 20 years, containing plenty of the same description of ore, with every privilege for manufacturing iron, which is subject to a lordship of one-half penny currency on the value of each ton of iron smelted.

The whole of the above are situated within 2 miles of the River Saint John, in the county of Carleton, near Woodstock, in the province of New Brunswick.

For further information, please inquire of Messrs. Camron, Miller, and Co., Liverpool; or to the York and Carleton Mining Company, Saint John, N.B.

LEAD MINES TO BE LET—THE LEAD MINES OF FEE DONALD, situated in the MINING DISTRICT OF STRONTIAN, ARGYLL-SHIRE.—THE ORE is a good SULPHURET, yielding, by correct analysis, 87 per cent. of lead. There are several veins which have been partially worked, and hold out encouraging prospects of success; they are favourably situated for free levels, and a stream (important for washing the ore, &c.) flows across them. An easy road, a few miles in length, will convey the produce to Loch Sunnart, an arm of the sea (western coast), whence it may be transported to any part of the United Kingdom.

The district has been surveyed by Mr. Riso, lecturer on mineralogy; and for further particulars application may be made to Messrs. Inglis and Burns, W.S., 16, Queen-street; or Mr. Alex. Riso, mineralogist, 2, Drummong-street, Edinburgh; and Mr. John Watson, factor, Strontian, Argyllshire.—Edinburgh, April 18, 1850.

MINERAL PROPERTY.—TO BE DISPOSED OF, a valuable MINERAL PROPERTY, in the centre of the mining district of CARBONIFEROUS, within 3 miles of the Ladbroke Mines. The lands of the adjacent mines run through the property, which contains upwards of 110 acres, with the right of working minerals on an additional extent of 500 acres beyond that cited as surface, which would be disposed of with the mineral rights. There is ample water-power, and the fee-simple of the soil, with minerals, will be disposed of by the proprietor.—Particulars may be acquired on application to Mr. Henry English, 25, Fleet-street, London.

A FEW SHARES in a HIGH SILVER-LEAD MINE TO BE DISPOSED OF.—Applications to be made to Mr. Durrant, 58, Lombard-street.

EAST OF SCOTLAND MALLEABLE IRON COMPANY.—The Directors have been authorised to RECEIVE OFFERS for the PURCHASE, OR LEASE, of the MALLEABLE IRON WORKS at DUNFERMLINE—comprising a STEAM-ENGINE, of 80-horse power, working the machinery, consisting of FORGE and 2 PUDDLE BAR TRAINS, of 16 inches diameter, HAMMER and PATENT SHINGLING MACHINE; also a 16-inch MERCHANT BAR or RAIL MILL, a 12-inch MILL, for ordinary sized merchant bars, and an 8-inch GUIDE MILL, 18 PUDDLING FURNACES, and 6 MILL FURNACES—the whole capable of producing 120 tons of bar-iron weekly.

A REFINERY STEAM-ENGINE, of 45-horse power, with blowing apparatus, complete, and two fires erected.

A complete SET of WORKSHOPS, containing a 20-horse power STEAM-ENGINE, driving a powerful roll-turning lathe, and blowing apparatus for smiths' fires.

A PUMPING and CLAY MILL STEAM-ENGINE, of 16-horse power, used for the manufacture of fire-brick, and pumping water for supply of engines.

Also, in course of erection, a STEAM-ENGINE, of 80-horse power, intended to drive the mills apart from the forges, having strong cast-iron framing laid down, and machinery suitable on the premises, which could be brought into active operation in a short period.

Together with the necessary TOOLS, LOOSE MACHINERY and STOCKS, of different kinds.

Offers will also be received for the PURCHASE of the ESTATE of TRANSY, consisting of about 107 imperial acres, with elegant MANSION-HOUSE and PLEASURE GROUNDS, situated about half a mile to the east of the town of Dunfermline.

Applications may be made to Mr. Talbot, manager of the works; or to Johnstone, Russell, and Craig, writers, Dunfermline.

Dunfermline, March 16, 1850.

THE MINING ALMANACK for 1850: compiled and arranged by HENRY ENGLISH, Mining Engineer, &c. Under the especial sanction and patronage of H.R.H. PRINCE ALBERT, Lord Warden of the Stannaries, Chief Steward of the Duchy of Cornwall, Devon, &c.—THE SECOND VOLUME will appear early in MAY NEXT, with ADDITIONAL TABLES and STATISTICS, connected with the Mining Interest.—Names of subscribers are requested to be addressed to Mr. H. English, 25, Fleet-street.

WILNECOTE, NEAR FAZELEY.—TO BE LET, on Royalty, extensive MINES of COAL, IRONSTONE, and CLAY, at Wilnecote, immediately adjoining the Midland Railway.—Apply to Mr. Parsons, Wilnecote, March 21, 1850.

EAST OF SCOTLAND MALLEABLE IRON COMPANY.

—Notice is hereby given, that a SPECIAL GENERAL MEETING of the shareholders of the EAST OF SCOTLAND MALLEABLE IRON COMPANY will be HELD within the Town House of Dunfermline upon Thursday, the 22nd day of August next, 1850, at Twelve o'clock noon, for the purpose of considering a proposal to DISSOLVE the said COMPANY, and to SELL and realise the whole PROPERTY and ESTATE, and FUNDS and EFFECTS of the Company, and finally to wind-up the Company's affairs—all in terms of the 37th clause of the Contract of Copartnership of the said Company.

By order of the Directors,
JAMES INGLIS, Chairman.
JOHN DRYSDALE, Interim Secretary.

Dunfermline, Feb. 6, 1850.

UNSTON IRON WORKS, NEAR SHEFFIELD.

Messrs. RANGELEY, WRIGHT, and Co. invite the attention of IRON MANUFACTURERS, IRON FOUNDRIES, &c., to their DERBYSHIRE PIG-IRON (smelted entirely with coke), which they can with confidence recommend for all purposes where purity of metal, combined with tenacity or strength, is an object. Their No. 3 pig-iron is sufficiently fluid for all descriptions of foundry-work. PIPING made from this quality will admit of almost any amount of hydraulic pressure. As a mixture with tender iron, or for purposes requiring great strength, their No. 4 is particularly adapted. For FORGE PURPOSES, the loss from waste in cinder, &c., is much below the usual average, and the product a very superior iron.

Messrs. R., W., and Co. also beg to inform RAILWAY CONTRACTORS, ENGINEERS, GAS and WATER-WORKS COMPANIES, BUILDERS, MILLWRIGHTS, &c., that having purchased an extensive assortment of models and apparatus from Messrs. Wm. Graham and Co., of Millou Iron-works (who have declined business), and having engaged experienced workmen from that establishment, they are in a position to furnish ALL DESCRIPTIONS OF CASTINGS, suitable for the above branches, and at moderate prices.

INDURATED AND IMPERVIOUS STONE, CHALK, &c.

—AGENTS, with capital, are WANTED in all TOWNS to SUPPLY (under British and Foreign Patents) the great demand for HUTCHINSONISED MATERIALS—hard as granite, impervious to moisture, vermin, &c.; the cheapest and most durable for all buildings, hydraulic, paving, monumental and decorative work.—The profits are large.

Apply to HUTCHINSON & CO.,
140, Strand, London; or Tunbridge Wells, Kent, and Caen, Normandy, stating name, address, and capital at command.

N.B.—Houses cured of damp. The produce of soft stone quarries, chalk, plaster of Paris, wood, pasteboard, and all absorbent materials induced to resist frost, vermin, &c.

LICENCES GRANTED.

PEAT CHARCOAL AND SANITARY REFORM.—The

PLANS and PROPOSITION submitted to the METROPOLITAN COMMISSIONERS OF SEWERS by Mr. JASPER W. ROGERS, G.E., for the "Sanitary Reform" of London, BY THE AID OF PEAT CHARCOAL, are open, at these offices, free for inspection—and the public is specially invited to examine them.

A pamphlet, containing the proposition, with estimates, and a few facts from the press, &c., may be had gratis.

Small samples of "Peat Charcoal Manure," with analyses of its components, can be obtained, so that all persons may have the opportunity of testing its properties and purity! Sanitary Engineering Office, 58, St. James's-street, London.

PROPELLING.—TO ENGINEERS AND OTHERS.

THE INVENTORS of a NEW MODE OF PROPELLING having secured the ENGLISH PATENT, and constructed an EXPERIMENTAL BOAT, which has far exceeded their expectations, are desirous of meeting with CAPITALISTS to SECURE the SCOTCH and OTHER PATENTS, on liberal terms.

For particulars apply to Mr. W. Binns, patent agent and consulting engineer, No. 43, Trinity-square, Southwark.

STEAM TO INDIA AND CHINA, VIA EGYPT.—Regular

MONTHLY MAIL (steam conveyance) for PASSENGERS and LIGHT GOODS TO CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG-KONG.

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY

BOOK PASSENGERS and RECEIVE GOODS and PARCELS for the ABOVE PORTS by their steamers—starting from Southampton on the 20th of every month; and from Suez on or about the 10th of the month.

BOMBAY.—Passengers for Bombay can proceed by this company's steamers of the 29th of the month, to Malta, thence to Alexandria by her Majesty's steamers, and from Suez by the Honourable East India Company's steamers.

MEDITERRANEAN.—Malta.—On the 20th and 29th of every month. CONSTANTINOPLE.—On the 29th of the month. ALEXANDRIA.—On the 20th of the month.

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th, 17th, and 27th of the month.

For plans of the vessels, rates of passage-money, and to secure passages and ship cargo apply at the company's offices, No. 122, Leadenhall-street, London; and 57, High-street, Southampton.

BEALBURY COPPER AND SILVER-LEAD MINE,

In shares of £1 each.—(No further call will be made).

Managed by a Finance Committee, in whose Names the Moneys are paid into the Bankers.

A LEASE has been OBTAINED of this valuable MINERAL PROPERTY, on liberal terms. Shares are for disposal on application to the Secretary, who will give certificates for the same, by which the holder is secured his interest in the mine, and entitled to the dividends, without the risk of any liability.

Prospectuses, with reports, may be had at the offices of the company, 4, Charlotte-row, Mansion-house, London.

THOMAS S. BEST, Secretary.

STAFFORDSHIRE COAL MINING COMPANY.

Capital £10,000, in shares of £1 each, to be paid on allotment.

(No further call will be made).

BANKERS.—Messrs. Rogers, Olding, and Co., Clements-lane.

This COMPANY is FORMED for the purpose of WORKING valuable COAL MINES in STAFFORDSHIRE, proved by pits already sunk. The necessary machinery for commencing the colliery is erected; and, from estimates carefully made by competent parties, will return full 25 per cent. per annum.

Plans, sections, and estimates, may be seen, and prospectuses obtained, at the offices of W. M. Kearns, Esq., solicitor, 5, Red Lion-square; or at the Company's offices, No. 4, Charlotte-row, Mansion-house, London.

THOMAS S. BEST, Secretary.

DRAKE WALLS MINES COMPANY.—At the Annual

General Meeting of the shareholders in this Company, held this day,

PETER STAINSBY, Esq., in the chair,

The following resolutions were passed unanimously:—

Resolved.—That the reports and accounts now read be received, adopted, and entered in the Company's Cost and Transfer Book.—Carried unanimously.

Resolved.—That the best thanks of this meeting are due, and are hereby given, to the Chairman, for his very able management of the affairs of the Company.—Carried unanimously.

Resolved.—That the cordial thanks of this meeting be, and are hereby given, to Mr. P. N. Johnson, for his energetic management of the Company's property.—Carried unanimously.

Resolved.—That to liquidate the balance against the adventurers, it is recommended that the Committee make a call of 10s. per share.—Carried unanimously.

TINCROFT MINING COMPANY.—At the Annual General

Meeting of the shareholders in this Company, held this day,

RICHARD HODGSON, Esq., in the chair,

The following resolutions were passed unanimously:—

That the reports and accounts now submitted be received, adopted, and entered in the company's minute-book.

That the thanks of this meeting be presented to the Chairman and Directors, for their judicious, careful, and successful management of the Company's property, as evidenced in the propitious condition of all departments of the mine.

That the thanks of the shareholders are due, and are hereby presented, to Capt. Floyd, for his able and energetic management of the mines, and for his careful attention to the interest of the shareholders.

Salvador House, April 10, 1850.

In the press, and shortly to be published,

MINING ADVENTURE: with a DIGEST of the COST-

BOOK SYSTEM, STANNARIES, and GENERAL MINING LAWS.

By THOMAS BARTLETT.

Subscribers names received at the office of the Mining Journal, 26, Fleet-street.

Just published.

MONEY VERSUS LIFE: A REVIEW of COLLIERY

CASUALTIES—showing their Cause and Extent—the Fatismony of Coalowners—the Concealment of Deaths in Mines—the Inaccuracy of Returns by Coroners—the necessity of Government Inspection, more Shafts, and adequate Provision for Widows and Orphans of the Victims to Explosion, &c.—with the means to provide for the same without unjust taxation:—also showing the Clemency of Government towards the Coalowners of the North. By G. COLWELL, Southwark.—Price 3s. 6d., in cloth and lettered.

Simplin and Marshall, London.

TO METAL BROKERS.—A YOUNG MAN is desirous of PLACING HIMSELF in the OFFICE of a METAL BROKER, for TWO YEARS, and for which a Premium will be given.—Address "A. B." at Mrs. Titterton's, stationer, George-yard, Lombard-street.

TO COALOWNERS.—Any COALOWNER or COMPANY

desirous of DISPOSING of CANNEL COAL, of good GAS-MAKING QUALITY, may hear of a prospect of a regular and considerable sale, if price and quality be found suitable.—Particulars of which, and of the locality of pits, are to be sent to "A. B." at Messrs. Waterlow and Co.'s, 66, London-wall.

MONEY.—TWENTY-THREE THOUSAND POUNDS

are ready to be ADVANCED, either by way of MORTGAGE, at a very low rate of interest, for a term of years, or to be INVESTED in the PURCHASE of SHARES in MINES, situate in England or in Wales, which pay well.

Three thousand pounds of the above belong exclusively, and is the property of Mr. Coward, who will only negotiate with principals for the same.

The other twenty thousand pounds are entirely and solely at his disposal, to be invested either by way of mortgage, or in such purchase or purchases as may entirely meet his approval.—Apply by letter, free of postage, to John James Coward, Esq., Lansdowne-crescent, Bath.—Dated Bath, April 18, 1850.

WANTED, in a Manufacturing Business and Iron Trade, a

PARTNER, who can command from £5000 to £8000, and who may be actively engaged or otherwise. The business is well established, and in full operation, yielding good profits, and capable of considerable improvements.—Communications, addressed to "A. B." 29, Basinghall-street, London, will have prompt attention.

N.B.—None but principals will be treated with.

THE DIRECTORS of the PATENT ALKALI COMPANY

are open to RECEIVE TENDERS for MUNDIC, containing not less than 30 per cent. sulphur, and 2 per cent. copper, in any quantity not exceeding 5000 tons, to be delivered free on board, or at Liverpool.—Samples (carriage paid), with prices, &c., to be forwarded to the Company's offices, 1, New Broad-street, London, before the 30th April, 1850.

By order, JOHN A. WEST, Secretary.

RAIL INSPECTOR.—TO RAILWAY DIRECTORS, EN-

GINEERS, & IRON MERCHANTS.—The ADVERTISER, in soliciting EMPLOYMENT in the ABOVE CAPACITY, begs to state, that, for the last 15 years, he has had extensive practice in the Manufacture of Rails, Wheel Tiers, and Merchant Iron; and that reference as to ability and integrity has been permitted by his former employers.

DAVID THOMAS, Treborth, near Cardiff.

TO CAPITALISTS.—COBALT AND NICKEL TRADE.

—An opportunity now presents itself for any PERSON with CAPITAL to embark in the COBALT and NICKEL TRADE. The concern is now in operation.—For particulars apply (by letter) to "U. S. V." Post-office, Birmingham.

SULPHATE OF BARYTES.—PERSONS disposed to SUP-

PLY the ABOVE ARTICLE in REGULAR QUANTITIES per month, in its natural state, to be delivered free on board at the nearest port, are requested to SEND TENDERS, as to quantity and price, addressed to "A. B." at Messrs. Goode, Browne, and Kingdon, 13, Bedford-row.—The barytes may be delivered stained or discoloured.

MINING SETT WANTED.—A GENTLEMAN, having

CAPITAL at his COMMAND, wishes to OBTAIN a GRANT, either in CORNWALL or DEVONSHIRE. Any landed proprietor having property of the above description that is of a promising character, will please to address a letter, stating full particulars, to "A. B." care of Mr. Plummer, 12, King-street, near Kingsland-road, London.

SPARE MATERIALS FOR SALE, BY PRIVATE CON-

TRACT, at the PROVIDENCE MINES, near ST. IVES.—A 30-inch cylinder PUMPING ENGINE, with BOILER, complete; 9-inch Pumps, Plunger-case, Matching-pieces, Working Barrels, and Windroves.—Apply to Capt. Dunstan, at the mines, or to Mr. Samuel Higgs, Penzance.—April 8, 1850.

MINERAL BLACK.—TWO SETS TO BE GRANTED

to a substantial PROPRIETARY, situate within 9 miles of water carriage, on the RIVER TAMAR, CORNWALL, with unusual facilities for working the same.

For samples, and further particulars, apply to Mr. C. L. Radcliffe, solicitor, Plymouth.

BRITISH AND FOREIGN RAILWAY OFFICE.

PARTIES having MINERAL ESTATES, COLLIERIES, or MINES, FOR SALE, or SHARES TO DISPOSE OF, in DIVIDEND MINES, or OTHERS, by enclosing a list of the number and price of such shares, and particulars of such property, the same will be registered for sale, and commission charged only on sales taking place.—Money advanced if required.—Apply to Mr. DURRANT, 58, Lombard-street, London.

MINING OFFICES, 3, GEORGE-YARD, LOMBARD-

STREET, LONDON.—Mr. T. F. THOMAS is a BUYER of SHARES in Wheal Seton, North Pool, South Wheal Francis, Trevelyan, Wheal Elisabeth, Cwm Erdd, Levant, Court Grange, Lisburne Mines, and Santiago; and is a SELLER in Alfred Consols, Bedford, Penzance Consols, Pendennis Consols, East Gurnis Lake, East Buller, Gustavus Mines, Stray Park, Tolcarne, Kingsait and Bedford, South Tolgus, Trevelyan and Barrior, South Basset, Tincroft, West Wheal Treasury, Wheal Comfort, Wheal Mary Ann, Wheal Margaret, and South Trevelyan.

T. F. THOMAS is generally in a position to BUY and SELL at close MARKET PRICES, and will be happy to afford information upon application.

N.B.—MINES INSPECTED.

MINING PROPERTY.—Mr. HERRON has SHARES in

the best DIVIDEND MINES FOR SALE, and which will give to the purchaser 17 to 25 per cent. for the outlay; amongst others are the following:—Trevelyan and Barrior, Wheal Trevelyan, Tremayne, Tincroft, East Wheal Rose, Great Devon Consols, West Providence, West Caradon, United Mines, Wheal Margaret, Condour, Carn Breva, West Treasury, Bedford, Mary Ann, South Tolgus, North Pool, and Santiago Mines.—Mining Offices, 33, Clements-lane, Lombard-street.

MR. T. A. READWIN, MINING OFFICES,

2, WINCHESTER-BUILDINGS, OLD BROAD-STREET, LONDON.

MR. R. TRIPP, MINING AND SHARE OFFICE,

ST. MICHAEL'S CHAMBERS, ST. MICHAEL'S-ALLEY, CORNHILL, LONDON.

MR. C. S. RICHARDSON, CIVIL ENGINEER, LAND

AND MINING SURVEYOR.

No. 15, OLD BROAD-STREET, LONDON.

JAMES LANE, MINING SHARE DEALER,

80, OLD BROAD-STREET, LONDON.

BODMIN CONSOLS, WHEAL BRAY, ASHBURTON

UNITED, and WHIDDON.—The LONDON OFFICES for these MINES are at No. 2, ROYAL EXCHANGE BUILDINGS. WM. MURRAY, Secretary.

EAST BIRCH TOR TIN MINING COMPANY.—Notice

is hereby given, that a SPECIAL GENERAL MEETING of the shareholders in the above Company will be HELD at 2, Winchester-buildings, on Tuesday, the 23d inst., at Two o'clock precisely, for the purpose of taking into consideration the report of Capt. Carthew as to the future working of the mine.

T. A. READWIN, Secretary.

April 9, 1850.

GUADALCANAL SILVER MINING ASSOCIATION.

The attention of the shareholders is particularly requested to the FIFTH and LAST PAYMENT of TEN SHILLINGS per share on the NEW SHARES, which will fall due on the 1st of May next. The Directors also think it right to announce their intention of enforcing the penalty of forfeiture against all such shares in respect of any call or calls upon which due payment shall not have been made at that date.

34, Broad-street-buildings, April 10, 1850. By order, H. T. RYDE, Sec.

IMPERIAL BRAZILIAN MINING ASSOCIATION, Win-

Transactions of Scientific Bodies.

MEETINGS DURING THE ENDS OF THE WEEK.

THIS DAY	Asiatic—3, New Burlington-street	2 P.M.
MONDAY	Geographical—3, Waterloo-place	7 P.M.
	Statistical—12, St. James's-square	8 P.M.
	British Architects—16, Grosvenor-street	8 P.M.
	Medical—3, Bolt-court, Fleet-street	8 P.M.
TUESDAY	Medical and Chirurgical—53, Berners-street	8 P.M.
	Civil Engineers—25, Great George-street	8 P.M.
	Zoological—11, Hanover-square	3 P.M.
	Antiquaries—Somerset-house	8 P.M.
	Agro-Egyptian—71, Mortimer-street, Cavendish-square	7 P.M.
WEDNESDAY	Society of Arts—Adelphi	8 P.M.
	Geological—Somerset House	8 P.M.
THURSDAY	Royal—Somerset-house	8 P.M.
	London Institution—Finsbury-circus	7 P.M.
	Royal Society of Literature—4, St. Martin's-place	4 P.M.
	Naturalists—41, Tavistock-street, Covent-garden	3 P.M.
FRIDAY	Royal Institution—Albemarle-street	8 P.M.
	Philosophical—London Library, 19, St. James's-square	8 P.M.
SATURDAY	Royal Botanic—Inner Circle, Regent's Park	3 P.M.
	Westminster Medical—17, Saville-row	8 P.M.

ROYAL INSTITUTION.—APRIL 18.

Professor ANSTED commenced a course of lectures "On Practical Geology." The lecture, which was purely introductory in its character, presented an outline of those geological facts which had been determined, and would form the foundation of the lectures which are to follow. He proposed to consider the earth's crust in two points of view—first, with regard to what was put upon it; and, secondly, with regard to what could be obtained from it. The one view was that taken by engineers and architects; the other, by miners, agriculturists, and others. A geological acquaintance with the rocks from which his soils were derived, enabled the agriculturist to decide upon the proper admixtures necessary to increase their fertility, and upon the possibility of draining cheaply and effectually; and by that alone could the architect and engineer determine where they could procure the best materials for the works they designed, and the proper localities to insure soundness and dryness for their foundations. This knowledge also guided the miner as to the places where he would be likely to obtain valuable minerals, and instructed him as to the mode of getting them safely, and without danger of the roof of the mine falling in. The learned professor then proceeded to describe the earth's crust, in relation to its mechanical condition, its chemical construction, and its mechanical position—three points which included all that it was necessary for the practical man to know. He defined the word "rock"—a term used rather indefinitely—to mean, geologically, any considerable mass of the earth's crust presenting the same conditions. The mechanical condition of a rock involved its hardness or softness, its toughness or brittleness, its permeability or impermeability, all qualities which must be considered in relation to other things—as, for instance, chalk was hard as compared with sand, and soft as compared with flint. A knowledge of texture was of great use, as in the manding of a road the material used might be sufficiently hard, but it might be, at the same time, brittle; and then it would soon be reduced to powder, and the road would be as bad as ever. The roadmaker, who possessed a knowledge of geology, would be enabled with greater certainty to determine what material combined in the greatest degree the qualities of hardness and toughness—the desiderata of macadamisers. The crystalline character of a rock was a most important quality, as, if crystalline, stone would not be altered by exposure to the weather. Here the geologist again had an advantage; for rocks often had a crystalline character, without exhibiting any crystals. The specific gravity was another important mechanical condition. He then passed to conditions merely structural, and then divided the rocks into three distinct classes—limestones, sandstones, and clays.

There were, however, compounds—as, for instance, an admixture of clay and lime formed marls, and clay and sand loams. There were also porphyritic rocks. This name was derived from a Greek word, signifying a particular colour, which was now understood by "purple," but which originally appeared to have been a sort of red. Now, however, the word signified a kind of rock, in which were a number of crystals embedded in a base, provided that base be also crystalline in its composition. Granite and syenite were rocks of this character; crystals and mica formed granite, felspar and hornblende constituted the true syenite; and these were porphyritic rocks. There was also another class of felspathic rocks, of which lava was the best example. He next described the stratification of rocks, and their denudations and disturbances, of which geological research had revealed so many interesting instances. To these disturbances, which were frequently mechanical, and of a very violent character, might be attributed all the swelling hills, romantic rocks, sublime mountains, extensive valleys, and other phenomena, which the physical geography of the earth exhibited. These disturbances had been observed always to have a uniform direction, and the strike of the principal ridges in every continent, or island, had a certain relation to each other. The learned professor concluded by stating that all these different conditions of the material which composed the earth's crust were of the utmost importance, as would be seen as he proceeded with the course.

The lecture was illustrated by a clever series of drawings and diagrams, and upon the table was a small collection of geological specimens.

GEOLOGICAL SOCIETY.

APRIL 10.—Sir CHARLES LYELL (President) in the chair.

William Murray, Esq., was elected a fellow. The following communication was read:—"Observations on the Discovery, by Prof. Lepsius, of sculptured marks on rocks in the Nile Valley in Nubia, indicating that within the historical period the river flowed at a higher level than in modern times." By Leonard Horner, Esq. The author having given Professor Lepsius' account of the position and character of certain hieroglyphs, registering the heights of the river floods, sculptured in the time of Amenemha III. (Morris), about 2900 years B.C., on the face of the foundation rock and the masonry of two fortresses, which were built by Sesutaten, predecessor of Morris, on the banks of the Nile at Semne, in Nubia; and having referred to the hypothesis proposed by Prof. Lepsius, in explanation of the great difference (26 feet 8 inches English) apparent between the highest ancient level of the water of the Nile, as indicated by the uppermost of the markings, and the highest level of the water during the inundations of the present day—viz.: that the bed of the Nile, in Nubia, has been excavated to a depth of 27 feet during the last 4000 years—proceeded to enquire into the physical and geological features of the Nile Valley in Nubia, noticing the power of the stream and the hardness of its bed, including the volume and velocity of the river, and the lithological characters of the rocks over which it passes.

After a lengthened consideration of these important conditions, the author arrived at the conclusion that any wearing away of the bed of the channel, north of Semne, the site of these ancient Nilometric markings, could not have taken place within the historical period. The only hypothesis that, in the author's opinion, could meet the requirements of the facts observed, would be either the wearing away of a reef or barrier at the place in question—a process requiring too long a period; or the existence, at some distant period, of a dam or barrier, formed, perhaps, by a landslide of the banks at some narrow gorge in the river's tract below Semne, which in the course of time had again been washed away; but of the existence of any such contraction of the channel, where such a barrier was possible, the author stated that there is as yet no evidence; and he concluded by observing that the conditions attending these markings, at present so enigmatical, offer an interesting problem to any competent geologist, well versed in the questions of physical structure involved, who may hereafter visit Nubia.

The following communications are to be read on Wednesday the 24th inst.:—"On the Diffusion of Wick," by John Cleghorn, Esq. "On Marine Shells in the Tili," by James Smith, Esq. "On the Bunter Sandstone of the Vale of the Nith," by Robert Harkness, Esq.

INSTITUTION OF CIVIL ENGINEERS.

APRIL 16.—WILLIAM CURTIS, Esq. (President), in the Chair.

The discussion upon Mr. Chubb's paper "On Locks and Keys," was renewed, and extended to such a length as to preclude the reading of any paper. Several locks, which had not been previously mentioned, were exhibited, and their peculiarities of construction were described. These bore the names of their inventors—Davis, Parsons, Williams, and Nettlefold. It was urged, that the curtain which had been mentioned might be essential for Summerford's lock, but could not be, in any degree, useful in Chubb's lock; in fact, that its only effect would be to induce complication, and augment the cost, without increasing the security. Among numerous instances of ingenious devices for opening locks, that stated to have been tried in America excited much attention. The process was described to be, that the operator, after inserting two pieces of India rubber, to limit the sphere of action, injected from a force-pump a composition of glue and molasses, in a heated state, which chilled quickly, and although extremely elastic, had the property of retaining the form and position of the lower side, or bellies of the tumblers; and that, after being cut out of the lock by a thin-bladed instrument, a key could be made from the impression. In explanation of this, however, it was shown, that in Chubb's lock there existed no similarity between the position of the bellies of the tumblers when at rest, and the figure of the bit of the key; and, therefore, that even supposing it to be possible to obtain an accurate impression of the position of the bellies of the tumblers when at rest, no indication would be afforded of the combination, or any assistance be given for making a false key. In further confirmation of this, a lock by Chubb was shown, in which, when at rest, the bellies of the tumblers were perfectly uniform, and in the same plane, so that an impression of the inside of such a lock must be utterly useless for any purpose. Although it was asserted that Chubb's locks had

been picked, it was admitted that, it had never been proved that those locks had really been made by the inventor; but, on the other hand, it had frequently been shown that spurious imitations of the first expired patent had been sold in large quantities, and had been marked "Chubb's Patent," until the makers were stopped by legal process, when it was ruled, both at law and equity, that although after the expiration of a patent any person might manufacture the article, he had no right to pirate a peculiar trade mark, or to use a distinctive stamp, which was irrespective of any patent right.

The locks used at Pentonville Prison were instances as uniting goodness and safety with extreme cheapness—but it was admitted that the workmanship was very inferior to that of Chubb's locks.

It was also asserted that Davis's locks, invariably used on the cabinet despatch-boxes, which frequently contained important secret papers, were never found to be out of order, or to be susceptible of being picked.

To this it was replied, that Mr. Chubb was prepared to produce a workman, who, without having ever previously seen the locks on the cabinet despatch-boxes, would open any number, on being allowed half an hour for each; and that the same might be done more easily with the Pentonville Prison locks.

In summing up the discussion, it was stated to be the duty of the Institution to express the conviction of a veritable Chubb's lock never having been picked, either in Great Britain or on the other side of the Atlantic; that it did, in fact, combine that strength, simplicity, and security, without which the most ingenious locks were utterly useless; that it possessed the merit, in the production, of never, through fear of competition, having reduced the quality of the workmanship to meet a reduced price; and that, by a due consideration of the workmen employed in the manufacture, the men had been taught to be as jealous of their master's reputation for good work as he could be of himself, and that thus the merited reputation of the work had been, and was still, maintained.

The meeting was adjourned until Tuesday evening, April 23, when the following papers would be read:—"Description of the Insistent Pontoon Bridge, executed at the Dublin Terminus, of the Midland Great Western Railway of Ireland," by Mr. R. Mallot, M. Inst. C.E.; and "Description of a Wrought-iron Lattice Bridge, erected over the line of the Rugby and Leamington Railway," by Mr. W. T. Doyno, Assoc. Inst. C.E.

LITERARY NOTICES.

Practical Observations and Researches on Ventilation and Disinfection, inclusive of other essential Provisions, connected with Sanitary Regulations and the Health of Towns. By JOHN MURRAY, Ph.D., M.A., F.S.A., F.L.S., F.G.S. London: Whittaker and Co., Ave Maria-lane.

Our talented correspondent, Dr. Murray—many of whose valuable suggestions on sanitary regulations have appeared in our columns—has, in a pamphlet of some 30 pages, condensed his views and observations on the necessary rules to be observed with regard to the preservation of the public and individual health, on the important subject of ventilation, disinfection, intramural internment, sewers, &c. The author commences his work with a description of the character of pure atmospheric air—that element in which all organic life, both animal and vegetable, exists, and without which it could not be maintained. It consists of 21 per cent of oxygen, and 79 per cent of nitrogen; the former gas being specifically heavier than an equivalent quantity of atmospheric air at mean temperature and pressure, and nitrogen of less specific gravity. These proportions are invariable in all latitudes and at every altitude; and Dr. Murray shows that the trivial and variable percentage of carbonic acid gas, stated by some chemists to be present, is so fractional and equivocal, as not to merit a distinct notice in a general estimate; and, in considering the difference of an impure and unhealthy atmosphere from the natural one, it must not be taken to exist in the chemical character of the atmosphere, but in some extrinsic or foreign of which it is the medium, particularly an undue proportion of moisture, with a aggravation of the temperature. Rules and hints are given for the proper ventilation of apartments, particularly dormitories; close draughts of air are severely deprecated as exceedingly injurious; and the securing a proper degree of light and air, without allowing the circulation of cold draughts, recommended. The window-tax Dr. Murray reprobates as one which cannot be too severely censured; and states it is in vain to attempt to give sanitary measures their full efficiency until this incubus is removed. In these pages the virtues of the various so-called "disinfectants" are analysed, and their respective properties described. The work in general contains information which should be obtained by every head of a family; and its thorough investigation would be of much advantage to parochial and other public bodies, more immediately concerned with the preservation of the public health.

The Colonies of Great Britain, their Government and Progress. London: Mining Journal Office, 26, Fleet-street.

That the means adopted for the good government of the vast colonial possessions of Great Britain is of the utmost importance to the well-being of the State itself, we can, we think, be none who will deny; but there is no man, and in the spirit of many public writers, a tendency abroad to depreciate every attempt on the part of a Ministry to support a healthy and permanent system of government, to misinterpret their acts with regard to their colonial government, and misrepresent them as despoilers and oppressors, while their every endeavour has been to benefit and improve the condition of the inhabitants. A small pamphlet on this interesting subject has just been published at our office, dedicated to Sir Wm. Molesworth, Bart., M.P., by "A Friend of the Colonies," who, the author states, as a body, doubt the accuracy of his premises, and deny the justice of his reasoning on the subject under consideration. The author endeavours to show that, in our colonial possessions, there exists such an amount of sound and satisfactory government—such a sum of material wealth and comfort realised, and in course of realisation, as is utterly incompatible with any thing short of good government. He first dwells upon the fact that these colonies, whose administration has been so severely and unjustly criticised, are scattered up and down all the parallels north and south, all the meridians east and west, of the habitable globe: they contain a population far more various than the zones throughout which they are distributed; every variety of the *genus homo*, with their habits, instincts, traditions, laws, and religions, into which the plastic hand of Government is to infuse the principles of unity and subordination. The measured superficies of these lands amount to about six millions of square miles; a population of nine millions—a colonial dominion comparable to what History tells us where in her vast and open volume, no Tradition and her thousand echoes, has sown down to these times the slightest memorial or the faintest intimation. The author then proceeds to the policy which has generally been followed in colonial administration, as that tending most to the liberty, happiness, and prosperity of the colonies—the leading feature of which is to leave, as to their internal government, the colonies as much as possible to themselves—to secure them from external annoyance by the flag and reputation of this country; and, having gained them at this point, to treat them as far as practicable in, and encourage them to undertake, the management of their own affairs. The unwieldy principle of civilisation has not been carried beyond its aim, unless as a last resource, waiting the hoped maturity of their own powers. In the general premises and deductions of the author we perfectly agree; but his remarks on the vexed subject of convict labour and the colonies, we consider as tending to inculcate the doctrine that the colonies, as a race, are subordinate to those of the mother country, and are to be made the sinks in which the pollution and crime of the latter are to be poured, without consideration of the fact that the colonies are the result of the emigration of the free population of the Cape of Good Hope made against the vile attempt to enforce upon them a convict population, in spite of implied treaties, was as highly creditable to them as it was disgraceful to the Government; for with just as much reason might they have let the convicts loose in the heart of the metropolis. As there are colonies who ask for convict labour, let them by all means have it, but do not inflict the evil on an old and loyal one, whose moral nerves quiver beneath the threatened enormity.

The Key to Railway Investments.—Part II.—The London and Brighton Railway, illustrated by a Map of the District. By JOHN WHITEHEAD, of the Stock Exchange. London: John Waale, High Holborn.

In last week's *Mining Journal*, we noticed the first pamphlet of a series intended to be published, giving a clear insight into the financial position and future traffic prospect of all the principal railways in the kingdom, and thus enabling parties desirous of investing in this species of property, to form a somewhat correct notion of their relative value. The second pamphlet, now before us, treats on the London and Brighton line, occupying a most important position, extending in an almost direct line from London to Brighton, and along the south coast from Brighton to Portsmouth on the west, and to Hastings on the east. Mr. Whitehead, from a due consideration of all circumstances, comes to the conclusion that, except with the London and Hastings traffic, which will now shortly be completed by the South-Eastern Company, the Brighton Company's prospects may be regarded as of an assuring character; and that as Brighton improves, which it will every year, this company must go on thriving. The total capital is not to exceed £7,000,000; and the net weekly average profit in 1849 was 5988s. per week, or 360s. per cent. above what the claims of the loan creditors amount to.

PROPOSED NEW DESCRIPTION OF RAILWAY.—Mr. E. E. MERRILL, C.E., of Camberwell, in a letter to the *Railway Times*, suggests the construction of a railway between London and Liverpool, on a novel and gigantic scale, which puts all our present practical details of railway travelling entirely in the shade, and even the broad gauge is but a pigmy to his proposition. His plan is to construct a single line of railway from London to Liverpool with a 20 ft. gauge, without turnings, sidings, or crossings, except at the two termini, and a passing place in the centre, and no curve to be of less than four miles radius. The rails are to be of suitable thickness, laid upon transverse and longitudinal sleepers, on which only one carriage is to travel at one time; this carriage is to be 200 feet long, 25 feet wide, and 15 feet high, on ten wheels, two in the centre, and four at each end; the lower part, between the wheels, to be constructed similar to the hold of a ship, and appropriated to luggage, of which a liberal quantity is to be allowed each passenger. The upper part of the carriage to contain a lobby, at about the middle, from which a door leads into a grand saloon, fitted up with all possible elegance, similar to the state room of a ship, with a staircase leading to the roof, which is to be a grand promenade, with a light, but strong, railing round it, 5 feet high, resembling the deck of a large steam-ship; on the other side of the lobby is to be a refreshment room, where refreshments of all kinds are to be supplied at moderate rates, with a small office part off, where a ticket clerk takes money, instead of at the stations. Next is a ladies room, fitted up with similar elegance to the saloon, and beyond this another large apartment, with benches and tables, for the lower class fares. This mammoth vehicle is to be propelled by a locomotive of corresponding power, capable of carrying fuel and water for the whole journey, which is to be performed in four hours. Four carriages to travel each way per day, starting from both termini at the same time, passing each other at the turn-out in the middle, and the fares to be 1d. and 2d. per mile for the first and second class passengers respectively. One or two guards will be stationed on the roof, to see all safe, manage signals, &c.; and the proposer thinks that the enormous saving in engines and carriages, and clerks and porters at stations, which are to be merely platforms for the passengers to step on or from, will induce capitalists to find the money for forming such a passenger line, the existing lines being retained for merely luggage trains.

NEW PRESSURE INDICATOR.—Mr. J. S. FRASER, engineer on the Great Western Railway, has furnished to the Royal Scottish Society of Arts, a description of a pressure-indicator for locomotives and other steam-engines, of his invention. The principle, or law, on which the action of this indicator depends was first made known through the experiments of M. Clement Desormes, "who showed that when steam, under high pressure, is allowed to escape from an orifice, pierced in a plate, and a flat disc is brought close to this plate, the plate and disc are made to adhere together." That this principle, with a lever of the first order connected by a link to the disc, the disc resting on a plate, having a small hole through it, and the short pipe (screwed at the end, for the purpose of fixing to the top of gauge glass or other part requiring to be tested), along with a weight or spring balance, complete the instrument. The author stated that it would be obvious that the piston indicators and manometers are open to many objections; the first, from friction and unequal expansion, never works freely, and the last, requiring a correction for the temperature of the air, is not such as can be of practical use. That all safety valves on steam-boilers should be tested, as great errors exist in this, and nearly always this error is in excess of pressure; and to detect "wire-drawing," or a less pressure in the cylinder than in the boiler, &c., such an instrument should be used in preference to one liable to stick at any point, and give doubtful, if not incorrect, results.

PAYING DIVIDENDS OUT OF CAPITAL.—CARLYLE V. THE SOUTH-EASTERN RAILWAY COMPANY.—This case, which has been twice previously before the court, came on again for hearing on Wednesday last. The plaintiff for himself and others 201 shareholders in the Ashford and Hastings line, applied to restrain the directors, secretary, and bankers of the company, from paying any dividend upon shares; there had been a dividend declared in March last contrary to Act of Parliament, which was payable in April, unless restrained by an injunction. The Hastings line had been transferred to the South-Eastern Company from the London and Brighton, and the 42 section of the Act, authorising such transfer, declared that if the line was not completed in three years, no dividend should be paid until such line was open to the public, unless authorised by Parliament to do so. The injunction was granted by Lord Langdale, the directors being allowed time to file affidavits that they were in a condition to meet all demands upon them in respect of completing the line in three years, by the end of next August. These affidavits having been read, Mr. Turner and Mr. Bovill supported the injunction; a supplemental affidavit of the plaintiff was read, contending that there was every reason to infer that the line could not possibly be finished within the time. Mr. Palmer was heard in reply, and showed that while the whole cost of the branch up to its completion in August next, was computed at £14,000L, the directors had £28,250L to meet all demands. Lord Langdale, in giving judgment, said upon the statements made it was suggested whether the strictness of the rule laid down by the Act of Parliament, as to the non-payment of dividends might not be relaxed by the discretion of the court. The information, however, afforded by defendants, did not appear satisfactory, and a new affidavit by plaintiff contradicted their allegations. The language of the Act was imperative, and the answers of defendants not what they should have been; it evaded important topics raised by the plaintiff's bill, and it would not be allowed that a company asking a boon of its shareholders, should tamper with the order of the court. Their declining to answer fully on several points created an impression in the mind of the court unfavourable to their candour. The injunction must continue, and be extended to the dividends declared, the directors to be at liberty to bring forward other information and other affidavits, or to produce their books, in order to have the injunction dissolved. The company is to have a case submitted to the Court of Exchequer, to decide on the construction of the Act of Parliament, the case to be settled by the Master, if any difference arises between the parties.

THIRTY-FIRST EDITION.
Illustrated by 26 Anatomical Coloured Engravings on Steel, On Physical Disqualifications, Generative Incapacity, and Impediments to Marriage. New Edition, enlarged to 166 pages.—Just published, price 2s. 6d., or by post, direct from the establishment, 3s. 6d. in postage stamps.

THE SILENT FRIEND: a medical work, on the infirmities and decay of the generative system, from excessive indulgence, infection, and the inordinate use of mercury, with remarks on marriage, and the means of obviating certain disqualifications, illustrated by 26 coloured engravings. By R. & L. PERRY & Co., consulting surgeons, 19, Berners-street, Oxford-street, London. Published at the authors' sold by Strange, 21, Paternoster-row; Hanny, 63, and Sanger, 150, Oxford-street; Starie, 23, Titchborne-street, Haymarket; and Gordon 146, Leadenhall-street.

PART THE FIRST treats of the anatomy and physiology of the reproductive organs, and is illustrated by six coloured engravings.—**PART THE SECOND** treats of the consequences resulting from excessive indulgence, and their lamentable effects on the system, producing mental and bodily weakness, nervous excitement, and generative incapacity; it is illustrated by three explanatory engravings.—**PART THE THIRD** treats of the disease resulting from infection, either in the primary or secondary form, and contains explicit directions for their treatment. This section is illustrated by 17 coloured engravings.—**PART THE FOURTH** contains a remedy for the prevention of disease by a simple application, by which the danger of infection is obviated. This important part of the work should not escape the reader's notice.—**PART THE FIFTH** is devoted to the consideration of marriage and its duties. The causes of unproductive unions are also considered, and the whole subject critically and philosophically inquired into.

THE CORDIAL BALM OF SYRIACUM is exclusively employed in treating nervous and sexual debility, impotence, &c., 11s. and 33s. per bottle.—**THE CONCENTRATED DETENSIVE ESSENCE**, an anti-aphyllitic remedy, for purifying the blood in cases of infection, secondary symptoms, eruptions, and the abuse of mercury, 11s. and 33s. per bottle.—**PERRY'S PURIFYING SPECIFIC PILLS**, 2s. 9d., 4s. 6d., and 11s. per box—a certain remedy for gonorrhoea, gleet, stricture, and chronic inflammation of the bladder.—Consultation fee, if by letter, 21s. A full description of the case is necessary. Illustrated by three explanatory engravings.—45 packets, with advice, to be had at the establishment only, by which the fee, 21s. is saved.—Messrs. Perry, surgeons, are in attendance daily at 19, Berners-street, from 11 to 2 and 5 to 8; on Sundays, from 11 to 1. Sold by Sutton and Co., 10, Bow Churchyard; W. Edwards, 67, St. Paul's Churchyard; Barclay and Sons, Farringdon-street; Butler, 4, Chancery; B. Johnston, 63, Cornhill; L. Hill, New Cross; W. B. Jones, chemist, Kingston; J. W. Tanner, Egham; S. Smith, Windsor; J. B. Skidlock, Bromley; T. Richey, London-street, Greenwich; T. Parker, Woolwich; S. and Co., Barking; and John Taurily, High street, Romford—of whom may be had the *Silent Friend*.

DR. LA'MBERT ON THE SECRET INFIRMITIES OF YOUTH AND MATURITY. With 40 coloured engravings on steel. Just published, and may be had in French or English, in a sealed envelope, 2s. 6d.; or post-paid, from the author, for forty-two stamps.

SELF-PRESERVATION: A Medical Treatise, on the Physiology of Marriage, and on the Secret Infirmitates and Disorders of Youth and Maturity. usually acquired during the period of life, which enervate the physical and mental powers, diminish and enfeeble the natural feelings, and exhaust the vital energies of Manhood; with Practical Observations on the Treatment of Nervous Debility, whether arising from these causes, close study, or the influence of tropical climates; local and constitutional weakness, syphilis, stricture, and all diseases and derangements resulting from indiscretion; with 40 coloured engravings, illustrating the Anatomy, Physiology, and Diseases of the Reproductive Organs, explaining their various structures, uses, and functions, and the injuries that are produced in them by solitary habits, excesses, and infection.

By SAMUEL LA'MBERT, M.D., 37, BEDFORD-SQUARE, LONDON.
Doctor of Medicine, Matriolated Member of the University of Edinburgh, Licentiate of Apothecaries' Hall, London, Honorary Member of the London Hospital Medical Society, &c.

REVIEWS OF THE WORK.
"The author of this singular and talented work is a legally qualified medical man, who has evidently had considerable experience in the treatment of the various disorders arising from the follies and frailties of early indiscretion. The engravings are an invaluable addition, by demonstrating the consequences of excesses, which must act as a salutary warning to youth and maturity, and by its personal, many questions may be satisfactorily replied to, that admit of no appeal, even to the most confidential friend."—*Bee*.
"Unquestionably this is a most extraordinary and skillful work, and ought to be extensively circulated; for it is quite evident that there are peculiar habits acquired at public schools and private seminaries, which are totally unknown to and concealed from the conductors of those establishments, and which cannot be too strongly reprobated and condemned. The engravings that adorn the work are clear and explanatory; and being written by a duly-qualified medical practitioner, will, doubtless, be the means of saving many a youth, as well as those of mature age, from the various evil consequences resulting from early indiscretions."—*Magnet*.

Sold by Kent and Richards, 52, Paternoster-row; Hanny, 63, Oxford-street; Starie, Titchborne-street, Haymarket; Mann, No. 39, Cornhill; Gordon, 146, Leadenhall-street, or free by post, for 42 stamps, from the author's residence, who may be consulted personally (or by letter) on these disorders daily, from 10 till 2, and from 5 till 8.

ON NERVOUS DEBILITY AND GENERATIVE DISEASES. Just published, the 49th thousand, an improved edition, 120 pages, price 2s., in a sealed envelope, or sent by the author, post-paid, to any address, for 2s. 6d., in postage stamps.

MANHOOD: THE CAUSES OF ITS PREMATURE DECLINE. With plain directions for its perfect restoration. A Medical Essay on those diseases of the Generative Organs, emanating from sedentary habits, indiscriminate excesses, the effects of climate, and infection, &c., addressed to the sufferer in youth, manhood, and old age; with practical remarks on marriage, the treatment and cure of nervous and mental debility, syphilis, and other urino-genital diseases, by which even the most shattered constitution may be restored, and reach the full period of life allotted to man. The whole illustrated with numerous anatomical engravings on steel, in colour, explaining the various functions, secretions, and structures of the reproductive organs in health and disease; with instructions for private correspondence, cases, &c.—By J. L. CURTIS, surgeon, 18, Albermarle-street, Piccadilly, London.

REVIEWS OF THE WORK.
"Manhood.—We feel no hesitation in saying, that there is no member of society by whom the book will not be found useful—whether such person hold the relation of a parent, preceptor, or a clergyman."—*Swan, Evening Paper*.
"I consider the Treatise on Manhood is decidedly the best extant in the French or English language. The subject is important, some of the highest medical authorities pronouncing the view on which it treats as the greatest source of civilization."—*From A. Sydney Jones, M.D., New York*.

"Curtis, on Manhood.—Fortunate for a country would it be did its youth put into practice the philanthropic and scientific maxims here laid down. One cause of matrimonial misery might then be banished from our land, and the race of the enervate be succeeded by a renewal of the hardy, vigorous spirits of the olden time."—*Chronicle*.
"Curtis, on Manhood.—It is a triumph of humanity, as well as morality, that the solitary and sedentary habits which this work so truly condemns have at last been stripped of the false delicacy which has screened them; and that scientific men have interposed to rescue many of their veterans from a premature grave. The views of the writer are excellent on the subject."—*Herald*.

Published by the author, and sold by Strange, 21, Paternoster-row, London; Heywood, Oldham-street, Manchester; Howell, 6, Church-street, Liverpool; Pitts, bookseller, High-street, Exeter; Martind, druggist, Truro; Gossie office, Farnham; Journal office, Plymouth; Campbell, chemist, 126, Argyle-street, Glasgow; and, in a sealed envelope, by all booksellers.

Original Correspondence.

DELAYS IN THE ENGLISH COURT OF CHANCERY—No. II.
PARTIALITY TO THE SUIT, DEMURRERS, &c.

Sir,—In my former letter (*Mining Journal*, April 6) it was shown that equity suitors can be with great facility introduced into that mundane Elysium—the Master's Office; and

"Oh, if there be an Elysium on earth,
It is this—it is this—it is this."

But it being hoped that amongst your numerous and influential readers there are some so fortunate as to be unacquainted with the "Citadel of the Court of Chancery," I cite the following description given of it (20 years ago) by an experienced legist (Mr. Jacob):—"Of all the foul appendages to a court of justice that craft and cupidity ever invented, the 'Master's Office' is one of the most flagrant, for it combines within itself nearly every noxious quality that in the nature of things could be incident to a court of justice. Its meetings are secret; its officers are paid in proportion to the badness of their work, and the delay they can create; its sittings are broken up into little fragments of time, called *hours*, so that whatever stage of discussion the matter then before the Master may have reached, it is necessarily adjourned without any regard to the ends of justice, the situation of the suitors, or the convenience of the parties whose attendance is requisite."—*Leg. Exa.*, p. 346. Such was the Master's Office 20 years ago, and such, with little exception, it is still; for through the kindness of a judicious defendant—i. e., a gentleman, who, being anxious to uphold the characteristic practice of the court, will not answer prematurely—a plaintiff may even now become familiarised with the bureau of that great interloper, the "Master," long before an answer has been obtained even to an original bill; for he is borne in mind that, in addition to original bills, wherein the plaintiff merely prays a decree touching some right withheld by the defendant, there are also a variety of other bills—as bills of interpleader, bills of certiorari, bills to perpetuate testimony, bills of discovery, bills of *quia timet*, bills of peace, and cross bills. There are likewise "further and other bills;" but their titles need not be here enumerated, as they will come within my remarks on "parties," which important feature in Chancery pleadings will forthwith be noticed.

The leading rule relative to "parties," is that all "persons interested in the demand, or who may be affected by the relief prayed, ought to be parties to the suit, however numerous they may be;" but "the judicial expositions of this rule (as Dr. Woodeson truly remarks) are very numerous."—*View of the Laws of England*, v. iii., p. 370; and it may be added that the conflicting opinions which still exist on this point frequently cause both delay and expense. Lord Chancellor Hardwick says—"The general rule is, that if you draw the jurisdiction out of a court of law, you must have all persons parties before the court, who will be necessary to make the determination complete."—*Poore v. Clarke*, 2 *Atk.*, 515. Lord Thurlow says—"All parties having an apparent right must be brought into court before the court will do anything which may affect their right."—1 *Ves.*, 29. Sir William Grant says—"As far as it is possible, the court endeavours to make a complete decree that shall embrace the whole subject, and determine upon the rights of all parties interested."—*Palk v. Lord Clinton*, 12 *Ves.*, 58. And Lord Eldon says—"The strict rule is, that all persons materially interested in the subject of the suit, however numerous, ought to be parties."—*Cockburn v. Thompson*, 16 *Ves.*, p. 325.

These various authorities show the vague language in which the rule has been laid down from time to time by celebrated judges; and in noticing its indefinite character, an able writer observes, that "the object at which judges have aimed in giving their judgments has been to lay down the rule with sufficient accuracy for the case immediately before them, but they have not attempted to pronounce a general rule."—*Calvert on Parties to Suits in Equity*, p. 5.

Viewed theoretically, the rule savours of justice, but it cannot be denied that its practical operation, doubtless caused by its judicial fluctuation, has frequently proved detrimental to the interests of suitors; for if, in attempting to carry out the strict rule, too many persons or matters should be included in the pleadings, the bill may be demurred to for *multifariousness*; and if too few be included, it may be demurred to for *want of parties*. See 1 *Atk.*, 291, 3 *P. Wms.*, p. 331; and *Solomons v. Laing*, *Rolls Court*, Jan. 12, 1850, *S. C.* *The Jurist*, Vol. xiv., p. 279, so that

"Incident in Seyllam, qui vult vitare Charybdim."

or, as that popular classic, Mr. Punch, would say—"Between two stools, the suit falls to the ground."

Notwithstanding that the bill may have passed the ordeal of demurrer, there are other causes of delay and expense incidental to a Chancery suit. According to the established practice a plaintiff is only allowed to amend his original bill within certain limits of time and subject matter; and even this liberty is very circumscribed, for all imperfections which arise in a suit during its progress are incapable of being remedied by amendment. (See *Jones v. Jones*, 3d *Atk.*, 217.) And if any event happen subsequently to the filing of an original bill, which gives a new interest in the matter in dispute, to any person not a party to the bill, as the *birth* of a tenant in tail; or if any event happen which occasions any alteration in the interest of any of the parties to the suit; or if any of the parties die, another bill must be filed, which is termed "a supplemental bill." And here it is, mark, worthy the great facilities afforded of adding to the prolixity of the pleadings, for even where the plaintiff has been ordered to amend his bill, and he has thought proper to file a "supplemental bill," it has been held justifiable, as appears from the case of *Greenwood v. Atkinson*. In this case, although the great Edward Sugden himself (he being of counsel in the cause) argued for the strict adherence to the rule laid down by Lord Reddesdale—viz.:—"that wherever the same end may be obtained by amendment, a supplemental bill should not be filed," yet the Vice-Chancellor over-ruled the objection, observing—"Nothing is more usual than to file a supplemental bill, for the purpose of bringing a new party before the Court."—See 5 *Simon's Chancery Reports*, p. 422.

And further, as to the practice of the Court—If a female plaintiff marry, or a sole plaintiff in a suit die, the suit must be continued by a new bill, entitled, "A Bill of Revivor," *Adams v. Hall*, *Turner's Ch. Repts.*, p. 259, and *White on Supplement and Revivor*. Thus fruitless causes of delay are afforded by births, marriages, and deaths; and for the occurrence of which ample time is afforded by the ordinary period over which a Chancery suit usually extends.

These are a few of the evils emanating from the present equity system—evils which still remain unredressed, although frequently denounced in Parliament; and it is but just to state that by none of our legislators have those evils been more frequently or more fully denounced than by one of our most eminent equity judges, the present Master of the Rolls, Lord Langdale, with whose remarks on the subject I will conclude this letter:—"Delay (says this eloquent senator and upright judge) begets delay. In the course of time supplemental facts arise, parties die, or change their relative situations—new parties interested in the property come into existence—interests devolve or are transmitted—and various dealings with the property take place. Every event may, and often does, become a source of fresh litigation, and fresh delay. Bills of revivor and supplement, and repeated interlocutory applications are the consequence, and in their turn become the causes of additional delay and increased expense. The delay, united with its attendant expense, tends to shut the door of justice. The man whose violated rights require the aid of the law, and who ought to find redress in its courts, is deterred by the delay and expense.

"The wrong-door sits in tranquillity and triumph; pay more, the same state of things which discourages *bona fide* litigation, encourages *mala fide* litigation, and invites a wrong-door himself into court. He comes with a fictitious complaint, not to establish a right, but to extort submission to wrong, and to secure to himself the fruit of his own iniquity. There are

* The principal ends of a demurrer (says Mitford) are to avoid a discovery which may be prejudicial to a defendant, or to cover a defective title, &c., *Mif. Equ. Plead.*, p. 100."

† The facts furnished by the note appended to this case, give what may be considered the history of many "a short Chancery suit." In June, 1830, the Bill was filed; in December application was made for leave to file a supplemental answer, to enable the defendant to deny admissions in his original answer; and the original and supplemental causes were heard; but the defendant insisting on the statute of limitations, as a bar to the plaintiff's demand, an issue was granted to try the matter at law. At the York Assizes, in 1833, the action was tried, and the plaintiff being non-suited, leave was given to move for a new trial. Upon the motion being made, a special case was directed to be framed, but before it could be argued, the defendant died; and the action being for *forti*, terminated. See 5 *Simon's Ch. Reports*, p. 423, note A. If the defendant had not died, the probability is, that the suit, "Greenwood v. Atkinson," would still occasionally grace the "Cause List" of the Court of Chancery; more particularly when we consider the status of the parties—viz.: the plaintiff being a *capitalist*, and the defendant an *attorney*.

‡ Recently, in the Vice-Chancellor's Court, a point was decided in a suit instituted upwards of 70 years ago, respecting claims under a will; "the most surprising as well as satisfactory feature in the case was, that sufficient funds had remained to enable the court to give the solitary applicant his costs."—*Law Times*, March 10th, 1850.

cases in which the injured party will submit to oppression, or a compromise of his rights, rather than expose himself to litigation, which he knows will be attended by great delay, and consequent anxiety and expense."

Here, Sir, we have presented to us a portrait, drawn by a fearless, but faithful and experienced hand, of the position of that portion of Her Majesty's subjects, who may unhappily be suitors in the Court of Chancery, that *Magna Aula Justitie*, in England. And is it surprising, Sir, that the people of this, as well as the people of the sister country, should uplift their voices in reprobation of a system, many memorials of which are to be found in the histories of "the paupers it hath made, and the hearts it hath broken?" In my next I will touch on the results of "The Reference to the Master," and "The Master's Office."

April 16. A VOICE FROM LINCOLN'S INN.

[For continuation of "Original Correspondence," see page 189.]

Mr. Robert Stephenson, M.P., was, on Thursday evening last, elected a Fellow of the Royal Society.

THE ELECTRIC TELEGRAPH IN FRANCE.—(From a Correspondent).—A commission has just been appointed to examine into the merits of the magneto-electric telegraph instrument, lately invented by Mr. Henley, with the view to its adoption by the French Government. A most successful and satisfactory trial was made of it, a few days since, on the wires of the Paris and Rouen Railway, at the office of the French Minister of the Interior, in the presence of M. Foy, director-in-chief of telegraphs. A great saving, it is expected, will result to the Government from the adoption of Mr. Henley's invention, as not only the expense and trouble of the voltaic battery are entirely dispensed with by the substitution of magnetic electricity, but wires of one quarter the usual weight are found sufficient for the purpose. The instruments tried in Paris, though very small, are said to be fully capable of working at least 1000 miles, and the importance of this can readily be estimated, when it is known that for a distance of 300 to 400 miles, only from five to six of the 24 cell voltaic batteries are required to work the telegraphs generally in use in England.

It is stated that the submarine telegraph between Dover and Calais is to be opened to the public on the 4th May, the anniversary of the proclamation of the French Republic, by the Constituent Assembly.

WHITE'S HYDRO-CARBON GAS.—In the *Mining Journal* of 14th July last, we noticed that, among other places where Mr. White was about erecting his patent gas apparatus, the new township of Southport, near Liverpool, would be shortly lit with it. The arrangements were completed, we believe, in Nov. last; since which it has been in operation, both public and private, very much to the satisfaction of the commissioners of Southport, and every individual employing it. It appears to possess in a high degree all the valuable properties attributed to it by the patentee—perfect freedom from sulphuretted hydrogen, or ammonia; no possible escape of unconsumed carbon, or smoke; ceilings of rooms where it is used thus remaining perfectly white, and gilt or metal ornaments, or frames, remaining free from tarnish. In whiteness and brilliancy, the light is from 20 to 27 per cent. superior to the generality of coal gas; while from the value of the residual products for the production of naphtha, oil, &c., it is stated that, on a moderately large scale, this gas can be put into the gasholder free of cost; 2000 ft. are commonly produced from 1 cwt. of resin; but by working up the residuum, 3500 to 4000 ft. can be generated. It is, however, stated that the former is the most economic method, by preserving the remains for the production of oil and naphtha. The wear and tear of the retorts, from the low heat required, is only one-third of coal gas retorts; and, in case of resin becoming dear, there are numerous plentiful hydro-carbons which can be employed with equal effect under the patent.

CONSUMPTION OF FUEL.—Mr. C. Burckhardt, of Cincinnati, has patented some improvements in the consumption of fuel in steam-boilers and other furnaces, which consist in applying decomposed steam, at a high temperature, to the products of combustion above the coal or other fuel, together with a due proportion of atmospheric air, the whole of which commingle, and by which all the combustible matter in the fuel is consumed. The inventor claims "the employment, arrangement, and combination of apparatus, constructed substantially as described, for consuming the gases arising from ignited fuel, by the introduction of decomposed steam, or the gases resulting therefrom, and atmospheric air in a highly heated state, over the fire. I also claim the revolving grate, constructed and operating as described."

NEW PLANING MACHINE.—Mr. W. E. Newton, of Chancery-lane, has just taken out a patent for some improvements in machinery for planing, tonguing, and grooving boards and planks, which he describes as an improved planing machine, consisting of a framework, in the lower part whereof are fitted, at the fore end and at about the centre, two carrier wheels, around which passes an endless band, composed of metal plates hinged together, and fluted on their exterior surfaces. A similar arrangement of wheels and band is placed above the first, and the whole driven by bands and toothed gearing from any prime mover. The plank to be operated upon is introduced between the fluted surfaces of the two bands, and thereby securely held and forced under the planes. The top system of wheels and band is supported in a self-adjustable frame, connected by rods to the frame carrying the planing iron. The planes, eight in number, are adjusted at different angles to the plank, by means of screws, and in front of each plane is a bar, which is made to press upon the plank by means of a spring, and yet yield to any inequalities in its surface. The tonguing and grooving irons are supported in the rear end of the framework, on either side of the plank; and the plank is forced between them by the continued movement of the endless bands. Both sides of the plank may be planed at the same time, by placing a second set of planes beyond the first, with their cutting edges uppermost.

RAILWAY IMPROVEMENTS.—Mr. T. C. Gregory, C.E., has invented a self-acting apparatus for disconnecting the carriages from the tender, upon the engine leaving the rails—the object of which is to cause the engine, by the mere motion of quitting the rails, to disengage the carriages without any shock, and leave them in safety behind. This is effected by means of a lever running below the engine and tender along the centre, having one end fixed at the front of the engine, and the fulcrum at the fore part of the tender. This lever acts on a box placed at the back of the tender, to which the carriages are attached. The lever is a strong bar of T iron, hung from the fore part of the engine by an iron rod, which has a rounded nut attached, on which the lever may turn easily when it changes its direction on coming on to a curve. There is a provision made for the separation of the engine and the tender, and for the play between them. At the fulcrum, and at necessary parts, the lever is supported by iron stays. The box, which is of cast-iron, is fixed firmly in a space cut out of the back board of the tender, and is kept in position by a strong vertical iron bar. It has a strong iron rim, with an opening at one part of sufficient width to allow of the carriage hook falling out, when required to do so, without tension. There is a spring within, having one end fixed firmly on the vertical iron bar, which is immovable, and the other end fixed in the side of the box. In order to charge the instrument, the box must be turned in opposition to the spring till a protuberance on the side rests against the end of the lever, and the latter being made a rigid body by connecting the engine and tender, the box is kept in position. The carriage hook is then attached, and the engine starts with its train. As long as the engine keeps the rails on a straight line, or on a certain amount of curve, to be hereafter mentioned, the box retains its place; but immediately on the front wheels of the engine deviating to a certain extent to either side, the lever slips past the protuberance, and the spring recoiling, the box returns to its original position, when the hook falls out, and the carriages are disconnected. It may be said that the hook may fall out when not required to do so, but this may be prevented by attaching a heavy weight to the middle of the chain, so that as it slackens it may fall, and thus retain the hook in its place; besides, a slight inclination upwards from the hook to the opening is provided, so that as the box is acted on by the lever on curves, no tendency may be given the hook to slip out. It has been calculated that a single lever will produce the nicety of action that is desirable only to the extent of a half-mile radius curve, and this has been adopted as an extreme, so as to simplify the explanation, and show the principle as clearly as possible; but by reducing the length of the back arm, and substituting a short lever of certain proportions, nearly the same degree of nicety may be produced, taking a quarter-mile radius curve for the extreme. This is perhaps the sharpest used on main lines of railway, and when they occur, the train goes so slowly, that there is no fear of any accident. There are sharper curves leading into engine sheds and stations, but as there is no necessity of the apparatus being used then, the carriage may be attached to a loop fixed in a buffer frame. It has been calculated that on a half-mile radius curve the front of the wheels must be 2 inches off the rail; on a mile curve only three-fourths of an inch off, and on a straight line still half an inch on the rail to start the machine. Before the engine attains this distance of 2 in., there is little fear of the tender wheels being off the rails, for it is neither more nor less than a circumstance that occurs every day in the case of an engine and tender passing on to a curve, when the fore part of the engine is on the curve and the tender on the straight. If the tender were to come off instead of the engine, the apparatus is expected to act. There can be little fear of the box being released by any lateral motion of the engine; for, when on a straight line, the end of the fore-arm must be 2½ inches to the one side or the other ere the apparatus will work. This can never be without the engine leaving the rails. While on a curve, the engine goes very steadily on account of the pressure on the outer rail, and the tendency is to diminish the angle made; and if it were to slip down to the lower rail, a sufficient allowance is made in the calculation.

* Lord Langdale's speech in the House of Lords, in the year 1836.

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

THIS DAY Kinsigth Mining Company—offices, at One.
TUESDAY East Birch Tor Mining Company—offices, at Two.
WEDNESDAY Llynvi Iron Company—offices, at One.
THURSDAY Deep River Mining Company—offices, at Two.
Western Gas-Light Company—offices, at Twelve.
Great Western Railway—Paddington Station, at Twelve.
Galvanised Iron Company—London Tavern, at One.
Metropolitan Stone Company—offices, at Two.
Aylam Life Assurance Company—offices, at Two.
FRIDAY Blaenavon Iron and Coal Company—offices, at One.
[The meetings of Mining Companies are inserted among the Mining Intelligence.]

IONIAN BANK.

An extraordinary general meeting of this company was held at the Bank, in Great Winchester-street, City, on Thursday, the 18th inst., for the purpose of electing a director, in the room of Col. Sir Frederick Hankey, G.U.M.G., re-tired.
OLIVER FARRER, Esq., in the chair.
Mr. KETTLEWELL (the secretary) read the advertisement.
The CHAIRMAN said, as so few of the proprietors were present on the occasion, he took it as a mark of the confidence they had in the directors. It would be seen, by the advertisement, that the sole object of the meeting was to elect a director in the room of Col. Sir Frederick Hankey, who had retired. The only candidate who now presented himself for the vacancy was J. Ranking, Esq.
The CHAIRMAN then moved, that John Ranking, Esq., be elected a director of the Ionian Bank.—Mr. MARSHALL (a proprietor) seconded the motion, which was passed unanimously.—The meeting then separated.

JOINT-STOCK COMPANIES.—By the report of the registrar, which has just been published, it appears that 165 joint-stock companies were provisionally registered during the year 1849, 81 of which have been completely registered, and 134 have not obtained complete registration. The fees received for registration during the same year have amounted to a total of 29277l.—28917s. 6d. being paid at the head office in London, and 511 14s. in Dublin. The number of companies which have failed to make any return of auditors, or of a report by an auditor of their accounts, during the year 1849, was 59. No proceedings, however, had been taken thereon.

BARNET AND NORTH METROPOLITAN.—On Monday, Master Tinney placed on the list, as liable, the names of the Hon. Fitzhardinge Berkeley, Captain Polhill, Messrs. Green, Freeman, and others, of the provisional committee, on the ground that they had attended meetings of the provisional committee, and, as members thereof, signed cheques and minutes. Captain Polhill did not dispute that he was a member.

WARWICK AND WORCESTER RAILWAY.—On Wednesday the winding up of the affairs of this company came on before Master Blunt, on petition of the shareholders, who state that the proposed capital was 700,000l., in 35,000 shares, of 20l. each, deposit 2l. 2s. The provisional committee incurred debts and liabilities to a considerable amount, 10,000l. of which are still outstanding, with an inconsiderable sum as assets. Mr. Ernest has been appointed official manager, to investigate and wind up affairs.

GROWING RHUBARB IN A COAL-PIT.—A collier of the name of Dearden, in the employ of Mr. E. Radcliff, of Woodland Cottage, near Stannington, planted a root of rhubarb on the 6th of March, in the pit, 37 yards below the surface, and on Tuesday last, the 9th inst., he cut six or seven stalks about 20 inches in length. This subterranean practice might probably be applied with great success in the production of that delicious vegetable, sea-kale, and we advise Mr. Dearden to try the experiment.—*Sheffield Times*.

WHEAL LANGFORD.—This mine is situated about a mile south-east of Callington, and about the same distance from Kith-hill granite range, and is in a beautiful killas, the heads and cross-heads of which present a strong red iron appearance at surface or shallow; at some depth the killas becomes more of a light blue colour—I speak of the eastern end of the sett; the western end is quite of another character of killas, although the lode does not change its colour and character in depth as in the country. At the first working of this mine it was called Wheal David, and worked jointly with Wheal Sir Vincent and part of Wheal Duchy, the property of three persons—W. Worth, B. Tucker, and D. Horndon, Esqs. From the different lords' lands a great quantity of silver-lead and silver gossan ores was risen and sold; at length a smelting work was erected, and there they smelted their own ores, and refined their own silver for many years, when their two large water-wheels became over-powered by an influx of under water; a steam-engine was then erected, and a new shaft sunk to intersect the lode at a given point; this shaft was sunk to about the 35 fm. level, and a good lode of silver taken away above and below the 25 fm. level, when a dispute arose between Mr. Carpenter, of Morwelham, and the other shareholders, and the mine was stopped, when it was said that it would start again as soon as arrangements could be made with Mr. Carpenter; but here the materials lay above three years, with the expense of a man looking after them by day and night; and while in this state, some poor half-starved miners took a pitch in the back of the adit of Capt. R. Malachi; these miners changed their condition, from being half-starved, to men worth 500l. each, within three months; this money was got in the year 1826, on silver gossan. The materials were sold (I think about 1828), the main rod in the shaft was cut off to the level of the water, and here remained the pumps and rods until about 1835, when Capt. Malachi, jun., commenced operations, under the name of the East Cornwall Silver Mining Company, and on the 13th Feb., 1846, a most splendid steam-engine, of 80-inch cylinder, was set to work, and the water was soon forked, when the mine became a rendezvous for most of the local mine captains. * * * They drove the shallow levels for a considerable distance west, almost through the sett, although, it is said, not on the main part of the lode; and this I think is pretty well ascertained, as I understand the present Wheal Langford Company has commenced driving a side level, and have made a very great discovery—a discovery said to be worth 500l. per fm. for silver, besides a good lode for copper. However, there is something yet to be done, as they cannot go down far after the lode, be it as rich as it may, without the aid of a powerful engine; and they ought to have the adjoining land to the east, if they ever intend to go down, and work the mine as they ought; but I am bound, in justice, to say that I believe the mine to be a fair speculation, if the land can be all obtained, and worked together, but without which Wheal Langford is nothing of herself as a mining set, for extent or depth, though there may be some thousands of pounds of silver raised above the present adit, which is, I think, at the shallowest point about 8 fms. deep, and the deepest—say, from 15 to 20 fms.—*From a Correspondent*.

ACCIDENTS.

West Canadian Mine.—As James Climo, aged 15, was engaged in rolling some stuff underground, and on his arrival at the pit for depositing the mineral, as he was in the act of taking the candle from the forehead of the barrow, which he had emptied, having placed one foot in it to do so, it overturned, and precipitated him headlong into the shaft, to the fearful and almost unprecedented distance of 104 fms. (624 ft.). His mutilated body presented a sad spectacle, being literally smashed to pieces, especially his head, of which the hinder part was almost, or entirely, gone; the different parts of his body were collected, placed on a frame, and conveyed to his home.

Burnley—Explosion of Fire-damp.—Another of these melancholy catastrophes occurred yesterday week at the Town House Colliery, Great Marsden, by which six lives have been sacrificed. Their names are—T. Steer, J. Chadwick, R. Howarth, T. Wilson, and J. W. Branton, brothers. It appears that Steer left the other five at the bottom of the shaft while he went into the workings, with a safety-lamp, to see that all was safe. The others imprudently followed, without waiting Steer's signal; and J. Branton (it is supposed) took the top off his lamp, when an explosion took place, by which all six were killed. Six widows and eight children are thus left destitute by an instantaneous blow, caused by the recklessness of one of the sufferers. The colliery is worked by Messrs. Spencer, Wilson, and Co., to whom no blame can be attached, nor to Mr. Sager, the agent, as taking off the top of a safety-lamp was against the rules; and he has decided that, in future, any man attempting to open his lamp shall be discharged from the employment.

Wolverhampton.—Abraham Love received such severe injuries on his back by a fall of coal, in a pit belonging to the Parkfield Company, that he expired about three hours afterwards. Deceased's son, a boy about 10 years of age, was working with him shortly before the accident, and he had sent him to fetch some timber to prop the coal immediately before it fell.

Brierley Hill.—Thomas Roberts was killed on Tuesday, whilst at work in a coal-pit at Dudley Wood Colliery, by a quantity of coal falling upon him. The coal was removed as quickly as possible, but it was found that he had sustained several severe injuries, and that he was quite dead. The deceased had tried the coal a short time before, when he and another man thought it sounded safe.

J. Round sustained a dreadful injury to his spine, by a fall of coal at the pits of Messrs. Firminstone, at Bromley.

Overstone.—An old man, named Holmes, employed in a stone quarry at the foot of Hoar, was killed by a large stone, weighing nearly 2 cwt., which is supposed to have been rolled in sport from the top of the hill by some visitors, who had come to see the preparations for the erection of Sir John Barrow's monument.

Mastor.—As Thomas Beaumont, who was employed in the Gallow-tree Hill pit, near Kimberworth, with two other workmen, descended the pit to commence work, and was carrying a burning candle in his hand, they came to a trap door, which had been left open, when an explosion took place. His two companions ran away, but Beaumont stood still, unable to move; he was much burned, and had to be dragged away by two of the workmen, but he never recovered his consciousness, and expired on the following night.

While a "bank girl," named Martin, was pushing an empty skip near the mouth of a coal-pit, in the neighbourhood of Wolverhampton, she accidentally slipped, fell down the shaft, and was killed by the fall.

Sedgley.—As Benj. Ford was ascending a coal-pit in a skip at Neaveacre Colliery, he was struck by the "dolly," a balance to which the pit chain is attached, which was going down, was knocked out of the skip, and fell to the bottom of the pit, a distance of 40 yds. He was brought up from the pit soon afterwards quite dead, having received a severe cut on his head.—Richard Cox, who was also in the skip, was struck by the dolly, and had a narrow escape from being knocked out. It was stated at the inquest that the dolly is used for the purpose of easing the horse, and that it was going down quietly at its usual rate. The shaft is a narrow one, being about 6 feet wide.—*Wolverhampton Chronicle*.

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—At our setting, on Saturday last, we set the shaft-man to open the ground in the 70 ft. level, for the purpose of making preparations for sinking the engine-shaft under the 70 ft. level; the lode in this level, east of said shaft, is about 6 ft. wide, worth for copper ore 30¢ per ton, and, from appearances, we expect it will improve as we open further east. The 70 ft. level cannot be driven for the month, or until the shaftmen are ready for sinking. The lode in the mine sinking under the 60 ft. level, east of engine-shaft, is 4 ft. wide; 3 ft. of the south part is very good for copper ore, worth 40¢ per ton. The 60 ft. level, east of Field's engine-shaft, is suspended for about a fortnight, the men being put to take down the south part of the lode, which part is standing for 4 ft. wide, and looking good for copper ore. The lode in the 50 ft. level east is presenting a better appearance. There is no change in any other part of these mines since the last report.

BARRISTOWN.—We have had stones of lead in the west end, on the new lode, during the last week; the men are still driving north, in the 30 ft. level west end (driven on east side of lode), but have not yet discovered the lode in the 30 ft. level end east; on this lode, the ground is not so hard as last reported, and the lode is increasing in size; a good branch of lead on the north wall, about 2 in. wide; the slope in the back of this level, about 2 ft. behind the end, will produce from 12 to 14 cwt. of lead per ton; the slope in the bottom of this level is producing about 8 or 10 cwt. of lead per ton; in a mine, sinking also in the bottom of this level (now down about 4 ft.), we have a good branch of lead, from 4 to 6 in. wide, but not very regular, although carrying a very smooth wall. In the 25 ft. level we have driven east about 1 ft., and the lode is still small. We are getting on well with the cross-cut south of Sloth shaft, in the 40 ft. level, which is now in about 4 ft. We have been obliged to clear some part of the old workings in the 10 ft. level, before we drive a cross-cut south to intersect the east and west lode, which is now completed.

BEDFORD UNITED.—The ground in the 115 ft. level south is just the same as last reported. We are still driving north in the 103 ft. level. In Andrew's mine, in this level, the lode is without alteration. We continue to drive by the side of the lode in the 90 ft. level east. The lode in Bray's mine, in this level, is 2 ft. wide, and worth 30¢ per ton. There has been no lode taken down in the 70 ft. level east. The pitches are looking favourable.

BRYN-ARIAN.—The lode in the engine-shaft is getting more compact, and yielding more ore than it has since we commenced sinking under the 10 ft. level; the lode in the 10 ft. level east is 6 ft. wide, with ore scattered throughout; the lode in the 10 ft. level west, in the back of this level, is not quite so good as last week, not yielding about 10 cwt. of ore per ton; the lode in the shaft sinking under the shallow adit level, on Pennam lode, is becoming rather disordered, and at present poor; the slope under the adit level west is much improved since last reported—will now yield at least 15 tons of ore per ton; the slope east of the shaft, under the same level, will still yield about 10 cwt. of ore per ton. We have engaged a vessel, and hope to have all the ore on board this week.

CARTHEW CONSOLS.—I have great pleasure in being able to inform you to-day of sundry important improvements in this mine, which have been met with within the last two or three days. In the first place I would notice the engine-shaft, which is being sunk in good ground, the lode large, very much improved in appearance, yielding fine copper, and is down about 5 ft. below the 45 ft. level. The lode in the north end in the 65 ft. level, is found much more productive than heretofore, in copper particularly; and in a rise which is in the back of this level, and about 7 ft. behind the end, a very good lode is found of lead and copper. In cutting into the lode in the south end, in this level, it is ascertained to be very leady—from appearances we are entering into those important branches which are gone down from the levels above. In the cross-cut from the middle shaft, in the 15 ft. level south, we have very encouraging prospects, in finding many strings of lead in the country. The wheel for driving the crusher is a very good one, alteration. At the lower mine I have put the men to drive north-west on a branch which has been intersected in driving the adit level south, which alteration will, I presume, very shortly bring us in connection with the upper mine lode. The branch on which we are now driving shows very good indications of mineral.

CRAIGWEN MINES.—Both the eastern and western slopes are as last reported. I have let the western slope, to four men, at 6¢ per ton; and also the eastern slope, to four men, at 6¢ per ton. I shall put two more miners in each slope in the beginning of next month. I have refused to let the cross-cut in No. 1 adit, as I expect them to cut the lode daily—here I have six miners and one labourer; the end produces much water. In the eastern shaft, the junction of the two lodes is a very good one, where the cross-cut will intersect the silver-lead lode; this might have saved it a few feet further north. The eastern shaft will be cleared out to-day. I have been now down twice—once in the slope, where the shaft was half cleared, which produces good mining stuff, though within 5 ft. of surface, and is upwards of 6 ft. wide; the lode does improve in going east towards the kills. I have also been down yesterday, and have dined No. 1 adit. I find that we have 4 ft. to drive from the adit to the eastern shaft. The adit is 5 ft. wide, west of the shaft, 1 ft. of which has been driven. I would recommend miners to be put on driving from the adit into the shaft, and thence continue to drive east till we get the lode into the kills, which must be near. It will be much cheaper to drive the 4 ft. from the adit to the shaft, than to haul the stuff and water out. I have four masons and four labourers on the crushing-house. Last week we had much better weather than the week before; yesterday and this morning has been very wet. By the latter end of this week, if we have fine weather, I shall be ready for the engine. I have now 30 men on the mine; next month I shall be able to put 12 more men on. I have levelled the last; next week I shall let the same in three or four lots.

DAREN.—The ore ground continues to look very well in the back of the level Canal, and the lead has improved in the level Canal. I should suppose that we have now about 7000 cwt. of lead and copper ore broken; but it is more difficult to estimate quantities now than if the crusher was going on, and taking away the stuff broken monthly. The level Canal adit is now open for the laying of a railroad from the mouth to the end, and there is a good ore lode in the end of the level, going back westward towards the old mine. Our floorings are so full of ore stuff that we cannot turn, and we are very anxious to get the mill to work to take some of it away, and send it to market. We have a dressing party spalling and preparing it for the crushing-mill, but they have a great deal of work before them. The wheel for driving the crusher is a very good one, but I do not think it will be necessary to erect the stamps for some time, as the stuff is easily cleaned by crushing and jigging. The lead is now worth, for lead and silver, fully 18¢ per ton, and it is a pity we are not able to be in the market for a few days. The mason-work for carrying the frames is now building.

DRAKE WALLS.—The following report, from Capt. W. Webb, was presented to the annual meeting of proprietors, held on the 12th inst.—a full report of the proceedings at which appeared in our last Journal:—

Drake Walls Mine, April 3.—In the first place, I beg to call the attention of the shareholders to what I consider needful to work this mine to the advantage for the time to come. Breton's mine, which has been sunk in the 60 ft. level, and is now down about 10 ft. below the 70 ft. level, and is highly necessary to push this level on with as much speed as possible eastward, towards the machine-shaft, so as to drain the level and get the water to run through the 70 ft. level to Breton's sump-shaft, and at the same time it will be opening tin ground, which we shall be able to work to an advantage when we can get a mine sunk below the 60, and holed to this level (the 70). The machine-shaft, which is now 7 ft. below the 60, should be sunk to the 70, and then drive east and west from the shaft, as by referring to the section, you may see that it is the centre of the tin ground; and, of course, the mine must be sunk from the 60 to the 70 ft. level, in order to divide the ground and make it convenient for stopping. I expect this ground will yield well, looking at the present prospects, and more particularly the ground east of machine-shaft. It is necessary to add two men more in the 50 ft. level (end), east of machine-shaft, so as to expedite the communication with the footway-shaft; and as soon as the water is drained by the driving of this end, the footway-shaft should be sunk from its present bottom (40) to the 50 ft. level, and a mine should be sunk from the 40 to the 50, by driving the level, and by doing this, we shall be able to open a great quantity of ground, which you may see by referring again to the section; and I fully expect this ground will answer well, judging from present prospects. It is high time to sink Webb's shaft with all possible speed from the Tye level to the 33; this is wanted immediately, in order to ventilate the 33 ft. level, and also to divide the ground, which, I think, is of a fair quality, and likely to pay well. And when these things which I have named are done, the mine will then be in a fair state of working, and in much better condition than it has been for some time past. There are other lodes which have been worked in the Drake Walls mine, and the lode which is now referred to, and a very large one, of great promise, and which has yielded both copper and tin, and from which they have been making returns during the last eight months; all of the lodes run direct into this mine. I would recommend, during the coming summer, sinking shale pits, or some other means, to find the same lode on the Drake Walls side; but the surest plan would be, if we could agree with the Wheel Russell people, to drive a level from their mine into this. If this could be done, it would save us the expense of searching for the Drake Walls lode, and the lode which is now referred to, and the lode which is of great advantage, and greatly increase the worth of this mine. I shall now state the prospects of the mine, commencing at Breton's shaft. In the 70 ft. level, which is just commenced, the lode in the east end has been producing some good work, but the ground is hard, and is likely to continue so for 2 or 3 fms., as the bar of hard ground has generally been about 3 fms. thick in the levels above. The slopes, both east and west of the machine-shaft, are looking better than for some time, and the end driving east of machine-shaft, in the 40, is improved. The slopes below the 40 ft. level, in the case of Dennis's mine, by 12 men, are looking well, and producing very good work. I think we have a good piece of ground in the back of the 60. The slopes in the bottom of the 40, east of Dennis's mine, so far as footway-shaft, which you may see by looking at the section, will make 300 fms. of ground—that is, 30 fms. long by 10 fms. high; this, I think, will turn out to be a good piece of ground. The slopes in the bottom of the 33 ft. level, east of footway-shaft, are yielding good tin branches, and a great quantity of stuff. The end driving east of footway-shaft, the 30 ft. level, is producing fair quality tin stuff, but the ground, at this time, is hard for driving; if we should stop this end at this time, which would be very improper, we have about 500 fms. of ground discovered above the back of the 33 to the Tye level, which we could take away at great speed if Webb's shaft had been holed from the Tye to this level. The slopes in the bottom of the Tye level, both east and west of footway-shaft, are producing a great quantity of tin stuff, but it is coarse. The Tye level is driving east of Webb's shaft by two men; the branches are small in the end, but all of them yield tin. We have very much improved our stock of tin ground driving the last year, by stopping all sinking, and driving one end from this time, the mine would be in a better state of working at the end of that time than it was when I came here, about eight months since; and at the commencement of the last year there was not any shaft sunk below, nor an end, before the slopes then working. I have referred above to what I call our stock of tin ground, and would call your attention, in proof of this, to the quantity of ground sunk and driven, and not taken away:—

Breton's shaft	.....	7	3	.....	2214	15	10
Machine ditto	.....	11	8	.....	124	8	0
New engine ditto	.....	5	2	.....	83	3	7
Driving—50 ft. level, east of machine shaft	.....	15	0	.....	130	0	0
Ends east and west of new engine ditto	.....	24	4	.....	116	76	8
Tye level, east of footway ditto	.....	30	0	.....	110	0	0
33, east of ditto	.....	19	2	.....	125	16	6

Totals.....
And the large piece of ground, the back of the 60.....
Ditto ditto ditto 33.....
Ditto ditto ditto 33.....
So it may be easily seen that the loss of the year has been in getting the mine in course

and yet there is more to be done to make the ground available, and when Webb's and footway shafts are sunk to the levels mentioned, and one or two winzes more sunk, which I have suggested, and which, I hope, may be completed before the end of the present year, we shall, I have no doubt, be in a good way of working; and if the ground turn out as I expect, I hope we shall, in the year, show a profit instead of a loss, as we have done this year.

DEVON AND COURTENAY.—The engine-shaft was let on Friday last at 154. 154 per fathom. The sumpmen have commenced to sink, and will proceed with all possible speed. We have only 4 or 5 fms. more to drive in the 40 ft. level west to be under the western shaft, when it is intended to hole to ventilate—price for driving 47. per fathom. In the 50 ft. level east there is ore in the lode, but not enough to save at present, and still a large stream of water coming from the lode, which is considered a good indication. On the tribute pitches there is no alteration, and the tributaries are working with spirit.

EAST CROWDALE.—The 28 ft. level, east of middle shaft, has, during this week, gone through a rich lode, but at present it is poor, being in disordered ground; the middle shaft lode is large and thin, but not rich. Harris's shaft is down about 6 fms. below the 17 ft. level, lode thin; the communicating shaft with the level below will enable us to set several pitches at a tribute. Our tribute pitches much as usual.

ESGAR LEE.—The caunter lode in the deep adit, west of the junction, is not looking so well as when last reported, but I think the failure is only a partial one; neither is the north lode, to the depth of two miles, looking so well as when last reported. We have for the present suspended the 13 ft. level, west of Morgan's mine, and have put these men to stop in the bottom of the shallow adit west of Morgan's mine, in order to raise work for the caunter, and to prove the course of the caunter lode, in the 12 ft. level west. The caunter lode in the 12 ft. level, east from surface, is still looking very promising, and will yield from 20 to 25 cwt. of ore per ton. The masons are making good progress in building the wheel pit, &c., and I am informed the segments of the water-wheel are quite ready, and are only waiting for a vessel to take them to Aberystwyth.

HOLMBUSH.—The lode in the 123 ft. level, west of the diagonal shaft, is 6 in. wide, composed of spar and spots of copper ore. The lode in the 120 ft. level is 4 ft. wide, composed of quartz, prisms, and stones of lead. The ground in the 120 ft. level, cross-cut south, towards the flag-jack lode, is much the same as last reported. The 110 ft. level south is for the present suspended, until the lode is cleared of stuff filled by the tributaries. The lode in the 100 ft. level, east of the great cross-course, is 18 in. wide, composed of spar, mulline, and stones of copper ore. The tribute pitches, in the back of the level, are producing a fair quantity of ore.

KESWICK.—The 10 ft. level rise at Brandley is the same as last reported. The 20 ft. level south is looking promising, with small strings of ore; in the 20 fathom level north there is no alteration; the sump in Salt level is rather better. The 17 fathom level at Thornewalds still continues to yield well, but the bearing ore; but the ground remains good; the bottom level is looking better, with small strings of ore.

KIRKCOUBRIGHTSHIRE.—At Stewart's shaft, the lode in the 62 fathom level west is 3 ft. wide, but not looking so well as last week. At Kait's shaft, the lode in the 62 fathom level, east of the shaft, is 4 ft. wide, with a good branch of ore coming in on the south wall, yielding 7 cwt. of lead to the fathom; the winzes over this end also have a good branch of ore in it in sinking. The 50 ft. level west has a lode 4 ft. wide, very kindly, but no ore in it to value.

SOUTH WALES MINES.—The south, or Frongoch lode, in the 12 ft. level, east of the cross-cut, is 19 ft. wide, composed principally of gossan, quartz, and slate, with a little copper, and producing some stones of lead, but not sufficient to set a value on. During the past week we have been concentrating on this lode, and in one of the pits, about 100 fms. east of the old workings, we have discovered the lode, which is looking very promising, being composed principally of gossan, quartz, and slate, with a little copper, and producing some stones of lead, but not sufficient to set a value on. The lode in the 12 ft. level, east of the cross-cut, is 19 ft. wide, composed principally of gossan, quartz, and slate, with a little copper, and producing some stones of lead, but not sufficient to set a value on.

SOUTH WHEAL TRELAWNY.—The ground in the engine-shaft is still favourable, composed of a deep cross-course, and is driving in the 50 ft. level, with six men in each cross-cut—ground much the same as last reported. Every thing is in a regular course of working.

TRELAWNY.—At Phillips's shaft, in the 82 north, the lode is 3 ft. wide, worth 10¢ per ton; in the 82 south the lode is 1½ ft. wide, worth 3¢ per fathom. The 72 north is communicated with the 72 south of Trelawny's shaft, and the men put to stop the lode; in the 72 south the lode is 2½ ft. wide, worth 4¢ per fathom. In the 62 north the lode is 2 ft. wide, worth 12¢ per ton. Trelawny's shaft is in good ground, and is now down 8 ft. 1 ft. 6 in. below the 32 fathom level. In the 32 north the lode is 3 ft. wide, worth 9¢ per ton. In the 32 south the lode is 4 ft. wide, worth 9¢ per fathom. In the 22 north the lode is 4 ft. wide, worth 9¢ per ton; in the 22 south the lode is 2½ ft. wide, worth 9¢ per ton. At the north mine, the men in the rise in the back of the 55, north of Trethane, are not able to work at present, in consequence of the badness of the air, but we intend to take steps to remedy this shortly. In the north of Smith's shaft the lode is 2 ft. wide, worth 7¢ per ton. The slopes throughout the mine are much as usual.

TRELEIGH CONSOLS.—In the 100, west of Garden's, the lode is 18 in. wide, not much ore. In the 90, west of ditto, the lode is 30 in. wide, with stones of ore, and is looking more kindly. In the 70, west of Garden's, the lode is 3½ ft. wide, worth 6¢ per ton. Wheel Parent engine-shaft, sinking below the 40, is sinking in the country—ground hard, but the 40 cross-cut, south of ditto, is driving towards the middle lode, in the 40, at 40 ft. level, the lode is 2 ft. wide, with stones of ore. In the winze sinking below the 20, the lode is 2½ ft. wide, worth 3¢ per ton; in the middle lode adit east of Nicholson's shaft, the lode is 15 in. wide, worth 2¢ per ton.

WEST WHEAL JEWEL.—The 25 fathom level, west of Williams's cross-course, on Wheal Jewel lode, is producing stones of ore; the 70 ft. level, west of the cross-course, on the same lode, is worth 6¢ per ton. The 57 ft. level, west of ditto cross-course, on the same lode, is unproductive. The winze in the 70 ft. level, west of ditto cross-course, on the same lode, is worth 3¢ per ton; the shallow adit level, west of Trengoning's shaft, on Tolcarne tin lode, is worth 6¢ per fathom; the deep adit level, west of ditto, on ditto lode, is unproductive. The 12 ft. level, west of ditto shaft, on the same lode, is worth 30¢ per ton; the slopes in the bottom of the 12 ft. level, east of Trengoning's shaft, on the same lode, are worth 30¢ per fathom; the slopes in the bottom of the 12 ft. level, west of ditto winze, on the same lode, are worth 24¢ per ton; these slopes are working on tribute.

WHEAL BENNY.—Operations are continuing on the Benny lode in the adit level, and at 19 fms. from surface some good stones of copper are have been taken from the lode; this lode, it is calculated, will come into Davey's shaft, in Lamerhoe, at about 80 fathoms in depth. The Ford lode (Wheal Benny) was cut in the 30, in Davey's shaft, some time since, and is now about to be intersected again in the 30 ft. level, in Davey's (Lamerhoe). The monthly cost, operations being suspended in Ford shaft, is very small.

WHEAL FRANCO.—The lode in the 62 ft. level, east of the engine-shaft, is 3 ft. wide, composed of spar, mulline, and occasionally good stones of ore; the pitches in the back of this level are producing fair work. The lode in the new winze, in the bottom of the 32 ft. level, east of the engine-shaft, is 3 ft. wide, producing good work; it is a very promising lode; this winze is about 16 fms. east of the present end of the 47 ft. level, and I have no doubt of meeting with a good lode in this level before we get under the winze; we have about 10 fms. more to drive to communicate the 32 fathom level to the 47 ft. level, with the main engine-shaft; we shall then be able to drive the water from the eastern part of the mine to our present 12 ft. level. We expect to communicate the 32 ft. level to the 47 ft. level, in the 32 ft. level, east of the 32 ft. level, in about six weeks, after which time we shall resume the driving of the 32 ft. level towards Wheal Maash. Our next sampling in the coming week will be about 110 tons.

WHEAL LANGFORD.—Our prospects still continue to improve, especially in reference to the copper lode; this lode is driven through just where the silver was discovered, and is found to be from 5 to 6 ft. wide, impregnated with copper all through, nearly the whole of which is saving work; but, before we can make any considerable return, we must erect stamps, which will be worked by water, and which we are preparing to do with all possible speed, and hope, in a month, to get them to work; after which we shall be able to return about 30 tons of copper per month, and to have a good pile of ore broken, and we have a good plan to put in underground. The pitches continue to improve, and the men will do well. I set another pitch on Tuesday last to E. James and pare, for two months, at 10s. in 11. The great gossan lode is increasing in size, being now 8 ft. wide, impregnated with copper ore. I shall be able to speak more fully of this in the next report.

WHEAL PENHALE.—The sumpmen have now completed the change in pitwork, and are getting on very well in sinking the engine-shaft, which is going down in good ground. The lode in the 30 fathom level is now has for some time past been disordered by the water, and is not so good as it was. The lode in the 30 ft. level, east of the lode, is found in it, and look very promising. The lode in the south end, at this level, shows better than it has for some time past, producing greater quantities of lead and copper. Having holed the winze from the 10 to the 20 ft. level north, we are now preparing to recommence sinking from the 20 to the 30 ft. level, wherein there is a very good lode; this winze is about 3 fms. ahead of the north end 30 ft. level. The lode in the 10 ft. level, south continues very large, producing a little lead and copper, but is not rich. The tribute pitches are improving in appearance.

WHEAL PROVIDENCE.—The engine and whim-shafts are cleared up to the adit level; the whim-shaft is timbered, and the winn will be completed in a few days, when the tributaries will begin to haul and drive their ore, and driving one end from this time, the mine would be in a better state of working at the end of that time than it was when I came here, about eight months since; and at the commencement of the last year there was not any shaft sunk below, nor an end, before the slopes then working. I have referred above to what I call our stock of tin ground, and would call your attention, in proof of this, to the quantity of ground sunk and driven, and not taken away:—

WHEAL SARAH.—The mine is looking very kindly at present. We have taken out stones of lead from the 30 and 20 ft. levels, weight of solid leaders of ore, and I believe there is a bunch of ore at hand. The sinking of Mayhaw's shaft has been discontinued, and the flat-roads from that shaft to the engine will now become available, to assist the engine in keeping the engine-shaft in the 30 ft. level. The operations of the mine, and ore from the lode in the 30. The crusher will be ready to work in about 14 days, and 5 or 6 tons of ore probably be sent to market within the same period.

WHEAL VINCENT.—There is no material alteration in the lode in the eastern shaft since you left. I was underground last evening, and am happy to state the lode in both ends is still productive, as last reported. The engine continues to keep the water in work, and the work from those ends is keeping both stamps continually at work. The men are this day taking down the lode in the western shaft, which I shall report on more fully next week.

WHEAL YOLLED.—The pitches are looking just as when last reported on, but have turned out more tin than I expected. Our sampling will be about four tons.

FOREIGN MINES.

AUSTRIAN MINING COMPANY.—[Received on the 17th April.]
Austriale, Jan. 12.—Enclosed you will receive a copy of Capt. Phillips's report (monthly) dated January 4. I likewise transmit herewith the copy of another letter from him, dated the 10th inst., the tenor of which is very gratifying, as showing that our hopes of an improvement in cutting through the lode were well founded, and that the end in the 40 ft. level is again looking better. The result of our researches is this—that between the 30 and 40 ft. levels we had a fine wide lode, yielding a large quantity of the richest copper ore; and the anxious and all important question to be solved was—whether or no

this lode holds down to the 50? We have now ascertained that it does, and that it has lost nothing of its substantial well-defined character, being estimated at 12 ft. in width. Its produce, however, remains to be ascertained, but as native copper and copper ore were met with, in sinking both in Masterman's shaft and in Stephen's winze, I think I am justified in reporting our prospects as presenting a very encouraging appearance. The idea that I have formed is this—that once our steam-engine and stamping-mill are up, and at work, the ore from Baker's and the side lodes, those from Anstey's and from Hagen's lodes, and such as we may obtain from the north end, be they even 15 per cent. ore, or even poorer than that, should or will be sufficient to keep the company moving ahead, whereas, up to the present time, our returns have depended solely upon the quantity of high produce ore we have been able to raise, like a steamer at sea with only one paddle to work with.—N. CLAWSON.

Thungillo Mine, Reedy Creek, Dec. 12.—I commenced opening and running the lines of this estate at the south-east corner and at right angles. I found the first seven chains of a worthless red coarse sparry sand or gravel; then a fine soil of sand commences on the surface about 3 inches thick in depth, then a red clayish soil of about 9 in. thick, and at a further depth marl, which I consider a fine soil for wheat, barley, oats, &c., if ploughed with a subsoil plough, and well mixed, it will then become a fine soil. A line spring with a gun scrub, up to 370 chains, I passed through the border of a few fine pieces, and a few other trees for a few chains further on to a plain; at 460 chains I found it getting very sandy and limestone; at 470 a dry creek; from 460 to 510 ft. I passed through the border of a pinery, where people are cutting—few are in this estate. Wild oats growing most luxuriantly, from 510 to 597 ft. light sandy loamy soil; at 546 magenta and marl; from 597 ft. the end light, red sandy loamy soil; at 595 ft. 50 lbs. I found the corner, and very large pile dug. I now reach the north-east corner of the estate at 599 ft. a shallow gulley, with a light red sandy loamy soil for 25 ft., very few trees of any kind; 3 ft. from corner I pass over a small gully, and observe limestone at 50 ft. I have now to contend with a rough, rocky, sparry, granite—mountains at 33 ft., limestone and freestone of fine quality 40 ft., limestone at 43 ft., freestone at 113 ft., with a small spring of fine water on Government land; at 179 ft. unoccupied scrub but, fine pasturage here; at 193 ft., and 18 ft. in the estate land, I found two excellent springs of water, requiring opening, for they rise and run a short distance and sink; these springs are the best to flow towards the north-east corner, where it will be much required at a future period; at 235 ft. I found a bluish clay or fire clay, at a depth of 2 ft.; at 10 ft., in the estate land, fine springs of water require to be opened, and a fine pure white sand of some depth, plenty of wood, at only for fire, principally gum and she oak. This is the spot for brick making—it is the top of Mollin-din, for some such name; from the north-east corner to 310 ft. it is but lightly covered with she oaks. The soil from the commencement has been generally of light red sandy loamy soil but very rocky and sparry, principally granite, with many gullies and hills, soil gets light sandy and loamy; at 309 ft. a shallow gulley, with appearances of water; at 314 ft. 5 lbs. I found the north-west corner, which I turned again at right angles at 85 lbs.; from the corner, in a shallow gulley, I opened and found a fine spring of water, which I left running into the estate. The whole of the line is very rocky and hilly, with plenty of gullies; redish, bluish, white granite, prevails up to 330 chains; at 314 ft. from the corner found water, but could not find the spring left, until I run the gulley at 33 chains 70 lbs. I found the corner, and the line pretty well covered with gum and she oaks, only fit for fire-wood. The she oak would make good spokes for cart and carriage wheels. At 330 chains the granite begins to change into a kind of sandstone, mixed with mica. The remainder of the line consists of a kind of cutler's gneiss, and a kind of Bilston and Newcastle gneiss. I have no hesitation in saying a fine quarry could be opened here. Some of the sandstone and soil is much mixed with mica from 330 ft. At 377 ft., and 12 ft. from the line, I found a deep-cut, occupied by one Mr. Harcourt, on the estate, and a line spring above the line. At 530 ft. 70 lbs. I passed over one of the creeks which runs to the mine spring above the line. At 603 ft. I passed over a second one, which runs in the same direction—water running here from a spring further up above, at 628 ft. 37 lbs. I now turn again at right angles, and find the line much the same as the last up to 169 ft. The soil is red, clayish, sandy, and loamy, at 220 ft.; limestone and freestone at 225 ft.; at 229 limestone; at 241 ft. I find the middle of Reedy Creek, which leads to the mine, from 245 ft. to 262 ft., very rocky; from 263 ft. to 208 ft. a good soil, and a line spring above the line. At 208 ft. I passed over one of the creeks which runs to the mine spring above the line. At 208 ft. I passed over one of the creeks which runs to the mine spring above the line.

Enclosed are a few wild fax, or linseed, which I gathered in various parts of the estate; this promises well for linen manufacture and oil. In running the north creek, I found a blue clay, mixed a little with mica; this is an excellent fire-clay for smelting; it is rather friable, and to-day I met with a splendid freestone, about the middle of the creek, and a slight stain of copper, the first I have seen on this property. I am of opinion that, with some care, the property can be brought into cultivation; the hills, and the hills' sides, with vine, mulberry, peach, almond, plum, olive, cork plantations, and make fine sheep farms and dairies as well. Vineyards on the side of those hills, where they would be protected from the north-east winds, would suit the grape best. The valleys, or table land, would produce wheat, barley, oats, sainfoin, Lucerne rape seed, hemp seed, linseed, lemons, citrons, oranges, arrow-root, and Indigo, and many others, cannot say anything about the interior of this property at present, until I have run all the gullies. We have had a heavy rain here to-day, and the last few days have been extremely hot. I have been on Monday—I have observed four days' rain during the period I have been up here.—THOMAS ALEXANDER.

The Thungillo setting report shows the number of tubmen employed, 44, and 10 tributaries; and the produce of the mine, to Jan. 4, as 21 cwt. sent to the port, supposed 26 per cent., 545; ditto, ditto, 20, 35; washed on the mine, say 18, 50; tributaries ore being dressed, supposed 30, 35; on the mine not dressed, supposed 20, 110; halvan ore, from 10 to 12 per cent., 750—1815 tons.

Thungillo Monthly Report.
In Polkinghorne's winze, on side lode, the ground continues rather hard, and comparatively unproductive, stones of yellow pyrites being scattered throughout, and which is not available at present without stamping-mills; the lode, however, continues its usual size and regularity, and the gossan gradually disappearing promises that, as we get deeper, the lode will be more settled in its character. We have not yet reached the water in this winze, and presume it is drained by the line pump in Masterman's shaft.

The 50 ft. level we have cut from 4 to 5 feet eastward into a strong lode, composed of hard quartz, iron pyrites, and large and frequent stones of yellow copper pyrites, and the further we advance the ore increases in quantity. Most likely we shall have to cut through a lode 12 ft. thick; and, as all the ore has hitherto been found on the eastern side of the lode, there is yet a good chance we shall soon have to report a course of yellow ore in the 50 ft. level.

In the 40 ft. level, from Phillips's winze, on Baker's lode, we have imperfect ventilation, and consequently employ no more than four men. In this end there is a decided improvement in the appearance of the lode, which, for 5 ft. in width, is thickly spotted and coated with green carbonate of copper; this end is now within 15 fms. of the originally proposed engine-shaft, and, for want of said shaft, there will be some delay in driving the 40 east, for want of proper air. This shaft will still be eligible as an engine shaft when required, and will greatly facilitate the future working of this mine; at present, however, it is only a winze, and will drain Masterman's shaft. The new shaft, 70 fms. from Masterman's, from the back of the lode, the faces of the rock are much coated with green carbonate, showing the strata in this place to be mineralized, which, taken in connection with the gradually improving state of the 40 north, is certainly most encouraging as to our future prospects in this part of the mine.

In the adit south, on Herne's lode, we are now driving eastward, expecting the lode to be within 2 fms. The strata is soft (2¢ per ton), and favourable for copper. The 40 ft. level of Masterman's is now again resumed, to intersect any lode or lodes in that direction; the ground hard, but likely to be easier soon.

Gregg's winze, at North End Mine, could not be conveniently sunk in the winter season, there being water in it; it is now, however, resumed; it contains a lode of copper ore, of say, 14 per cent., and is about 12 in. wide. After the water is drained, and the men in full working on it, I hope to be able to give a good report on it.

For more than two years past, we have been working on the 40 ft. level, and we have now been able to sink a winze below the water level, in which the lode is 5 ft. wide, of gossan, &c., very promising. Most likely, with a windlass and bucket, we shall be able to sink it 3 or 4 fms. below the water level, which will show more clearly the propriety of our sinking a pump (as we contemplate), connected to Anstey's engine, by horizontal rods, or a chain.

Stephen's winze is now 7 fms. deep below the 40; the water is gradually draining from it to the 50 ft. level; we, therefore, employ two men in it, who, we judge, will sink it as fast as the water drains down. There is a large lode in it, and it is all saving work, chiefly for stamps.

It will be seen by the setting list, that the value of the lode in the different tubwork bargains is not so high as usual, neither are the tribute pitches turning out so well as was expected. The stoping on tubwork, and the recent working on tribute, prove that on "side lode" the 40 ft. level was much richer than above and below. It is, however, a fact that we have raised upwards of 1500 tons above the water level, and

Gongo.—Our produce here has a little improved in the last 10 days, and I have no doubt of this going on progressively. We get into the main body of the vein, and, regretfully, however, that the great western stamps, during the last 10 days, have yielded 1 lb. 0 oz. 18 dwts. of gold from miscellaneous stuff supplied. Capt. Guy's report, which I beg to hand here-with, will show the progress making in getting up the Goldsmith's stamps, which I hope will be satisfactory to you as it is to myself.

Feb. 13.—I have now nothing of importance to communicate. Our different works are progressing as regularly as circumstances will allow. A few boxes of coarse work have been obtained from the stamps in the back of the 14 ft. level, near Gibson's shaft, which yielded 1 oz. 18 dwts. and I regret that the stamps' work has also been very poor. We have not yet been able to begin stopping the bottom of the 14, on the run of the big pump vein; but hope to do so in the course of a day or two; the present stops are already down to the level. Another breakage of Walker's horizontal rods has occurred, which has somewhat impeded our work. This, I fear, will always be the case, until the whole run is completely replaced by new—a great part of which has already been done, by putting in new pieces, when a breakage occurs, instead of patching the old. Gibson's is now 7 ft. below the 14 ft. level, having sunk 3 ft. in the last 10 days; the vein in the bottom has been lately showing tolerably promising traces of gold, and is otherwise encouraging. I think the opinion expressed in my last respects, with regard to the three auriferous lines in the big pump vein, is now verified.

Gibson's shaft has been completed to the 14 ft. level, and the erection of the new whim on it is a very forward state. We shall soon commence sinking this shaft towards the 24 ft. level; a plan, however, in the 14 must be cut previously—this has already been done. We are encouraging exertion to get the boiler and other machinery ready for the iron wheel, several native carpenters are employed in making large pumps, to be placed in Gibson's shaft, to supersede those in Thomas's, which are defective, and the old wheel is in such a deplorable state, that it is impossible she can stand much longer; however, by patching, &c., I hope to make her last until the new machinery is ready; the iron wheel will then do more than all the work formerly performed by Thomas's and Gibson's, which, on my arrival here, could not keep the 14 ft. level drained. It will be seen by the captain's report, that the driving of the shaft, south of Gibson's, has been suspended, principally on account of the hardness of the ground, and these people are now employed in driving the adit, north of Goldsmith's, on one of the veins; the object of this is to prove the north ground, to which very little attention has yet been paid, either by the company or the former proprietors. Our principal object, as you are aware, is the sinking of Gibson's shaft, so as to create back-slopes as early as possible; and I beg to assure you that everything that can possibly and prudently promote this work has been done. I am sorry, however, that the progress lately made has been so slow, and consequently it is difficult in sinking the shaft itself, but owing to the continued breakages of the machinery.

Gongo Seco.—Here the great western stamps have again been the most productive, having yielded 1 lb. 0 oz. 16 dwts. out of 3 lbs. 2 ozs. 11 dwts. of gold; this is accounted for, in some measure, by the dilapidated state of Walker's and Joinville's, while the great western is in excellent condition. On my visit here last week I found some parts of the old mine laid open by the open cutting, and the samples taken from the jaggedness, though not rich, were very encouraging. The contractors are going on well with the re-erection of Goldsmith's stamps; I hope to see 10 heads working in about a fortnight. The hammer-mill is really a great benefit to us; it not only supplies us with stamp-heads made from the old scrap iron, but we have also a large guano made for Bananal. I intend starting the troop for Rio in the early part of next month, and which will, I am happy to say, take with it a good remittance of gold (118 lbs. of gold are now in the chest). The troop down the country will be under the charge of Captain John Luke, on his way to England. I am happy to say that the establishment continues very healthy, orderly, and contented. J. H. RICHARDS.

Gold report from Feb. 12 to 13—Gongo, 3 lbs. 2 ozs. 11 dwts.; Bananal, 2 lbs. 4 ozs. 1 dwts. 10 lbs. 0 ozs. 12 dwts.

LINARES MINES.—The following has been received from Capt. Curry:—

Paseo Ancho, April 6.—The water is now drained 93 fms. below the 31 ft. level, and we expect to see the vein, which we have been looking for, in the next few days. A little of the old workings at San Gaspar winze, below the 31, has been examined, but nearly the whole of the lode has been carefully removed. The large excavations made, with the appearance of the lode in the few arches left standing at this place, lead us to conclude that vast deposits of lead have been found here. Wilson's shaft is sunk 33 fms. below the 31—so far this has been through the old workings, and consequently no lead, but by present appearances and the information furnished, we expect to meet with some good ground in our course down to the 43. We have seen some good ground in the old workings, below the 31, which will be taken away hereafter on a low tribute. Shaw's shaft is now nearly 4 fms. under the 17 ft. level; this has been connected with the old workings on the course of the lode; we expect this shaft will now be sunk tolerably speedy, and when having reached the bottom of the old work, we may expect some lead from this place. San Juan shaft is now sunk to a depth of 54 fms. below the 17 ft. level; we hope to see this shaft connected with the 31 by the end of May. Since my last the forest of the 31 ft. level west has been seen; the lode in the present, and seems to be abundant, and unproductive, though very rich to within a few feet of the end. We consider this level is very near the large lode seen in the 17 ft. level, which accounts for the unsettled appearance of the vein. Our tribute department is much the same as last month. One Englishman and four Spanish labourers, at a tribute of 20s. per ton.

Two contracts on the north lode, each 45s. per ton.

One ditto on the south lode 45s. ..

One ditto 54s. ..

To this latter we purpose adding a new and ancient lode, and to remove when the tribute will be less. From the whole we may calculate on 40 tons for the present month. I think we have now 100 tons raised, about 60 of which have been cleaned and weighed.

We are still going on to enlarge our dressing floors, erecting sheds, storehouses, &c., which will be wanted rather extensively when we get in full operation.

The following has been received from Mr. H. Thomas:—

Linares, April 10.—We are bringing down the segunda, or, in lumps, to the suitable size for the English market, and I am glad to say this will be accomplished with a very small portion of waste, much less than we expected; we are pushing this business as much as practicable. The Government engineer was here yesterday, and took a sample of our lead ore for assay, in conformity with the law, to determine the quantity of silver, prior to exportation. We are also in communication with proprietors of donkeys, to lead for Sevilla. Since writing the above, one of the men has come up from the mine, and has some fine stones of lead, broken in the bottom; he reports the lode to be good for 18 in. to 2 ft. wide, and we have to hope that the former workings are not very close to it, either below, or in its length.

NATIONAL BRAZILIAN MINING ASSOCIATION.

Cocac, Feb. 12.—You are aware, from the last report, that the operations at Hamilton's lower slope are carried on in the usual way, at least until some further change takes place in the appearance and direction of the lode, or in the layers contained in it; this slope is yet very promising indeed, for although the vein is small, good samples are frequently found amongst the broken ore, and the jaquetina met with some weeks ago has disappeared, which, at all events, is in our favour, as regards the safety of the slope, and if there is any judging from past operations, it is a favourable indication respecting the gold vein. The wheel-pit, in the lower part of Hamilton's upper slope, is now getting on with rapidly, which has been going on for some time, from the want of an Englishman to attend to it, will again be taken in hand in the course of a few days. At Terra Cahida there is a strong party employed in driving towards the western vein. Cocac produce from 5th to 14th Feb., mks. 3 3 4 7; Calaba ditto, from 28th Jan. to 16th Feb., mks. 3 3 6 16—mks. 8 7 2 3.

THE WORTHING MINING COMPANY.—This company has received advice from Adelaide to the 27th December last. The following is an extract from Capt. John Phillips's report:—

I am to write you, my dear friend, as to the prospects of the mine. Captains Phillips, Richards, and Alsop, jointly corroborate my final report for August and September, 1848: Then, as to the operations, there is but one instance in which they preferred a different course from my own, and which the drawing herewith will explain; I thought of the same place for the shaft, but did not prefer it. In deference to their judgment, however, I see no reason to object to it. I intended mine as a trial shaft for the whole of the lodes and branches, and a good underlayer for lode 1; their plan, I think, involves a great deal of work for lode 2. They think my plan of cross-cutting the ground from one shaft would overpower the machine with water, and there is reason in this; and, amid all pros and cons, you may regard this alteration as having my concurrence. In the next place you will observe, I had begun a middle gully working, which, did our means permit, should have been done before; we have succeeded in showing this part to be also "alive" for ore. You will see that the approval of these workings, by proposing their continuance, under the idea that this would be the best place for a steam-engine, from which I always made an important question to myself; of course, the place already assigned is only in consequence of most ore seen.

If when the three lodes are cut at the middle gully, at an expense, probably, of 200l., they present a good appearance, nobody will dissent from preferring this place for the engine; if otherwise, the first position is agreed on. I should have made allusion to this in former reports, but I thought it unsafe, or futile, to look for more probationary time or money. You may recollect my remarking to you, there was preliminary work enough for 20 men here and there, and this was one point I always had an eye to in the real workings of the ground. As to the land, I shall be glad to see it occupied by surface tenants, day-labourers, and others. Then, for the materials, I am glad to hear of two tons of gunpowder on the way; you may exceed the required quantities of this and fuso, they will often sell well.

There are three or four others in the colony I should recommend at a royalty of 1-15th, paying also the cost of the shaft, to be named for available workings out of the first profits. I intend to send you accurate working drawings on a large scale. I now conclude with a copy of the Worthing Mine setting for the 8th December, 1849: The middle gully cross-cut, east through the lode, at a price when done; then by the lode at 40s. per fm., putting a hole in it every 6 ft. The same lode west, by four men, one month, at 84. 15s. The water-wheel shaft, to sink 9 ft. long by 6 ft. wide, the taker to have 4 ft. for timberwork and hanging tackle, by six miners and three labourers, one month, at 44s.—price per fm., 14s. There is a horse-wheel nearly complete, at the contract price of 645l. 5s. 6d. stone-built two-roomed miners' cottages, well getting on, at the contract price of 343l. We await the arrival of the engines spoken of, which I trust will arrive complete. I am not aware of anything more to mention until our next setting; we are daily expecting to cut new points of the lodes in the middle gully, there being two lodes, 1 and 2, to the west of us. We suppose the one already cut, and showing a little copper, to be lode 2.

UNITED MEXICAN MINING ASSOCIATION.

Guantanamo, March 8.—MINER OF RAYAS.—I have the satisfaction to observe, that a most obvious improvement was developed in the same period in the workings of San Clemente, now so much extended, as to originate another working (San Cristobal) in the most advanced point to the north-west; and, although a slight and partial change is observable since then, still the improved condition of these workings is a source of material addition to the quality of their produce, which has advanced fully 25 per cent., and also to the quantity, though in less proportion to the increase in the confined dimensions of the newly-discovered points. The pit of San Diego also presents some improvement, and in addition thereto, the end of Santo Toribio to the south-east, which has again been resumed, in lieu of the cross-cut to the upper body of the vein, which had been substituted. The general appearance of the mine is, therefore, considered more encouraging, as well as more prosperous, than for many months past.

MINE OF ALDABA.—The sinking of the shaft, which has now attained a depth of 1304 varas, and driving of the cross-cut, continue without interruption; and as the vein becomes more approached, the ground assumes a proportionate metallic character.

MINE OF PROMONTARIO.—This work is prosecuted without any decided change, except the Santa Catalina, which is giving encouraging indications.

MINE OF JESUS MARIA Y JOSE.—The timbering of the upper portion of the shaft having been completed, the sinking of the latter was resumed last month, and its total depth was 4667 varas.

The available assets had increased during the month \$14,700.

ASTURIAN MINING COMPANY.

An adjourned special general meeting of shareholders was held at the offices, Austriars, on Tuesday last, the 16th inst.

CHARLES CUNNINGHAM, Esq., in the chair.

Mr. MACKENZIE (the secretary) having read the advertisement convening the original special meeting of the 26th March, and the adjourned one, and the minutes of the two last meetings, which were confirmed, after some discussion, a resolution was carried, to admit several holders of shares who had not paid the last two calls, who were in attendance, on condition that they took no part in the proceedings.—Mr. MOORE then read the following reports of the directors, the committee of re-constitution, and the committee of investigation:—

DIRECTORS' REPORT.

Since the presentation of our last report, we have succeeded in maintaining the credit of the company through a period of great difficulty. Finding that the payment of the last call, due the 10th November, was delayed in some cases from motives which led us to suppose that, if resorted to, it would be entirely unproductive to the shareholders in default, a further portion of the call to no inconsiderable amount might be collected, we convened, on the 8th of January, a private meeting of those shareholders whose contributions had already saved the property of the company from virtual confiscation, in order to consult as to the best means of obtaining funds to meet the current liabilities. Having explained the position of the company's affairs to that meeting, it was proposed that we should raise a loan—the repayment whereof should be secured upon the manufactured iron in the hands of our agents. It was the only measure by which the necessary funds could be provided; and we unanimously adopted it. We trust that the result is our best justification; for, since that period, we have obtained on account of the call 1455l., and the loan has amounted to 2640l.—of which 1650l. was subscribed at the meeting to which we have referred. Had it not been for the receipt of these moneys, it would have been impossible to have followed the course originally defined for the conduct of the board, and which alone, as we are well assured, has obtained for the company the favourable consideration of the Spanish authorities. With respect to the re-constitution of the company in Spain, it is proposed by the board that, in lieu of the permanent stock of 50,000l.—the capital of which was originally proposed—the securities representing that sum should be converted into two classes of Incumbencies, charged as debts on the property to be transferred:—1. A sum of 25,000l., or 30,000l., as the money consideration for the transfer of the works, to be paid off within two years—the proceeds applied, so far as may be necessary, in payment of the present company's debts, for which no other provision can be made; the residue being ratably distributed to the shareholders in default of the Asturian Mines. For the month of May our liabilities are 9810s. 8d., and that sum includes 1011s.—an account some time due, and 379l. 19s. 6d. for machinery, ordered by our predecessors, and prepared for shipment since August last. Since the 8th Dec. last, to the 8th April inst. (exclusive of the cost of carriage, and other charges on iron previously manufactured, and sent for shipment to Gijon and Aviles, the cost of bringing home the workmen and their families, and other charges, not properly attributable to the current expenses of maintaining the works and concessions), has been, on an average, nearly equal to the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the amount allowed for the purchase of the shares, which has been manufactured of malleable iron and quicksilver, a quantity equal in value to about half the expenditure. We regret that the proceeds of the sales of our consignments have been, to the present time, but partially realised, and that further sales are but slowly progressing, because the machinery for sale, employed by our competitors, is more suitable to the Spanish market than our system of consigning to agents, who, for the most part, without sufficiently extensive connection in the trade. Nevertheless, if adequate funds can be obtained, to meet the claims of the shareholders, and to satisfy the debt of the company, we will be enabled to support the company's credit until the re-constitution of the company, when it is to be hoped that working capital may be obtained, or the works leased, or disposed of to competent parties, upon better terms than can be expected under present circumstances. We have, therefore, to urge the shareholders to a further exertion, by contributing to a loan for the amount required, trusting that many of the shareholders who are still in arrear may come forward to aid, by paying their calls as on the former occasion, to which we have alluded. If this suggestion is not adopted, we have only to propose that the

4. If you had another shaft, we should recommend more being done on the Camborne Vein old lode, as well as other points; we admit they are poor, and as there is no level being opened upon them will continue so; but, inasmuch as these lodes have formerly been productive for copper, we certainly should advise opening some levels whilst you can pay dividends, in doing which it may lead to discoveries that, in common probability, will assist in the returns, when the south lode may not be so rich.—5. In carefully examining all the turbot, and making such calculations as we are in the habit of doing, without going into detail, we have arrived at the conclusion that 300 tons per month may be considered the present discoveries.

BEDFORD UNITED MINING COMPANY.

The usual bi-monthly meeting of shareholders was held at the offices, Threadneedle-street, on Thursday, the 18th inst.

JOHN BROWN, Esq., in the chair.

The account of expenditure and receipts, showing balance of 1228l. 12s. 7d. in favour of mine, and an account of payments and receipts before the next meeting (11th June), showing balance of receipts over payments of 1640l. 3s. 4d., including the above 1228l. 12s. 7d., and an estimate of assets in reserve of 3228l. 4s. 3d., were laid before the meeting, and passed. A dividend of 5s. per share was declared.

HERODSFOT MINING COMPANY.

A meeting of shareholders was held at the offices, George-yard, Lombard-street, on the 18th inst., when a statement of accounts was presented, showing that the debt of 1700l., due at last meeting, had been paid off from the call of 5l. per share (1280l.), and from the profits of the mine, which, notwithstanding the accident that delayed the works nearly one month, have amounted, since the last meeting, to 5942l. 13s. 7d.

Mr. WOLFEKSTAN (the manager) stated, that the returns of the mine were now yielding 200l. per month profit; that he had erected stamps at an expense of 100l., which would return about 8 tons of ore, worth 100l., per month from the halvan, or refuse ore; and that he had succeeded in obtaining a reduction of dues to 1-20th, thereby effecting a saving of 200l. per year; and that more ore was being discovered in the mine than was taken away, thereby increasing the reserves.

Mr. John Watson was appointed secretary to the company, at a salary of 5l. 5s. per month.

HEIGNSTON DOWN CONSOLS MINING COMPANY.

The usual two-monthly meeting was held at the offices, Threadneedle-street, on Thursday, the 18th inst.

J. ASHWELL, Esq., in the chair.

The account of receipts and expenditure, showing balance in favour of mine of 356l. 16s. 8d., and also an account of payments and receipts before the next meeting (11th June), showing a balance against the mine of 239l. 8s. 4d., was laid before the meeting, and a call of 2s. 6d. per share made.—The assets in reserve are estimated at 350l.

The following report, from Capt. W. Richards, was read to the meeting.—

April 17.—The lode in the 35 ft. level, east of the cross-cut, is somewhat less productive than when last reported on; it has, nevertheless, for about 8 ft. in length, produced from 3 to 4 tons of superior quality ore, and judging from present indications, I have no hesitation in saying that ere long it will become equal, if not superior, in produce than at any time previous. In the middle cross-cut the lode is 10 ft. wide, composed of gossan, friable quartz, peach, pryan, and mandie, with a leader of tin ore on the north part of the lode, 6 in. wide. The lode in the western cross-cut, so far as cut into, which is 6 ft., presents most indubitable promise that, at an increased depth, large returns of copper ore will be realized from it. The pitch in the bottom of this level, east of the mine, by two men, at 3s. 4d. in 11 ft., looks very promising, having a good leader of ore, about 9 in. wide. In the 45 ft. level, east of the mine, the lode, capels and altogether, is about 3 ft. wide, producing excellent gossan, mixed with very good stones of copper ore, of superior quality, with indications of further improvements. In conclusion, I beg to say that by Friday next we shall have 20 tons of ore ready for the market, equivalent to about 240l. to 250l., and only regret, for want of means, that I cannot increase my interest one hundred fold what it is at present, in this more than kindly adventure.

PENZANCE CONSOLS MINING COMPANY.

A meeting of shareholders was held on Wednesday, the 17th April, when the accounts, for Jan. and Feb., were presented, showing—Balance at last account, 105l. 11s. 7d.; tin sold, 552l. 19s.; sundries received, 102l. 19s.—689l. 9s. 7d.—Costs for January and February, 271l. 4s. 6d.; merchants' bills, 82l. 10s. 1d.; lords' and bondsmen's dues, 24l. 6s. 11d.; leaving balance in favour of shareholders, 291l. 8s. 1d.—The accounts were examined and passed, and a dividend of 2s. 6d. per share declared; leaving balance of 163l. 8s. 1d. in favour of company, after payment of dividend.

The following report was read to the meeting.—

April 15.—We have communicated the bottom, or 18 ft. level, from the engine-shaft west of Carthew's shaft; and we are glad to report that we have a good course of tin west of Carthew's shaft, the bottom of the mine, for 5 fms. long, and from 2 to 4 ft. wide; west of this, Boyne's lode joins with the engine shaft, in the 18 ft. level, a few fms. further west, we expect to cut another tin lode, which is likely to produce a quantity of tin stuff; on the north lode, we have a good course of tin, 2 ft. wide, for 6 fms. in length, and still tin in each level, east and west; and this is only 12 fms. from surface. It may be stated that we have only worked this mine 18 fms. under the surface, and about 18 fms. in length, and 7 fms. high—say, 126 fms.—which have produced upwards of 44 tons of tin, amounting to upwards of 2000l. worth of tin, equal to (say) 20l. 9s. per fm.; and we are glad to say that we never knew of any mine doing anything like this in the county of Cornwall. We beg to say, if the tin ground east and west, and in the bottom, produce tin for each fathom of ground as we go deeper, we may expect to have the best tin mine in either Cornwall or Devon. On Friday last, the 12th inst., Carthew's shaft was set to sink under the 18 ft. level by six men, and also two cross-cuts, in the 18 ft. level, to drive north to the lode, and also two cross-cuts, in the 18 ft. level, to drive north to the lode. We have now employed underground 26 men on tribute, and nine men on turbot; sundry other work underground, and surface work—such as spalling, &c.—13 men and 2 boys; at the stamps, one man, two boys, and three girls; total number of hands employed, 61.

SOUTH WHEAL JOSIAH MINING COMPANY.

An adjourned meeting of shareholders was held at Tavistock, on the 5th inst., when the statement of accounts was presented and passed, showing balance of 71l. 5s. 11d. in favour of shareholders. A call of 10s. per share was made for future operations, the cost for January being 27l., and the balance from last account, 98l. 5s. 11d. There are some liabilities with February and March cost which, when paid, and all arrears of calls collected, will leave a balance of 5l. 8s. 10d. remaining in pursuer's hands.

The following report, from Capt. John Hamby, was read:—

The appearances are improving. In the last 6 feet driving, the lode is about 2 feet wide, producing some good branches of ore, and appears to improve as we go forward, and I think it likely to lead to something good, having three known cross-courses before us. We expect a good improvement in the lode on intersecting it. In the south part of the set we have discovered three large tin lodes, which have been worked on extensively on the backs to the east; we have commenced driving a shallow adit to cut them, and expect, in a short time, to intersect one of them. In opening the mouth of this adit, we found some rich stones of shale tin, and, from the favourable indications, we expect soon to cut a good lode of tin, and would recommend the driving of these adit ends with all speed.

WHEAL GOLDEN CONSOLS.

At a meeting of shareholders, held on the 17th inst., the accounts were produced, which show that, after paying all costs and engagements to the end of March, a cash balance remains in favour of the company of 304l. 10s.

The following report was read to the meeting:—

At the engine-shaft, in the 70 ft. level, north of the cross-cut, the ground is rather harder, with spots of ore, and the lode is nearly under the grey ground gone down from the 60 ft. level; we may, therefore, calculate we have 90 fms. of lode before us, which in the 60 averaged 1 to 2 tons per fm. The former company lost levels in driving the 60, so that we may average our backs in the 70 at 14 fms.; this, by 90 fms. in length, calculating only 1 ton per fm., will produce 1260 tons of ore, and, at the price of our last parcel, will produce 15,270l. Thomas's shaft is about 50 fms. north of our present end, or about the middle of the grey ground. I propose, on getting there, to sink on the course of the lode another 10 fms., to drive north to the lode, or 12,000l. worth of ore, in addition to the above; but as it improves in depth, I have no doubt the above is a very limited estimate. In Marwell's shaft south, in the 43, the ground is as last reported. We have 16 sets of tributaries in this part of the mine, who raise sufficient ore to pay our costs, as they have done for many months past; so that, from our north lode, we may now soon expect to make handsome dividends.—East Wheal Golden: In this adit level the ground is improved; the lode is 6 feet thick, made up with spar and gossan. We are above 14 fms. from the elvan cross-course, and 120 ft. to the shaft, or pit, where the late company took many tons of ore. On the whole, I believe the mines never looked so promising as now. The engines work well; the pumping-engine keeps the water with 4 strokes per minute; all the machinery is now in order, and I expect we shall not require 10l. worth of timber per month. I do not recommend the adventurers to commence working Penbale or Lumar Mine until the adit level of East Wheal Golden is driven opposite to Penbale engine-shaft. The latter being parallel lode, it is very probable the former may cut best possible where Penbale turned out her greatest produce, and, if so, the arrangements for our machinery can then be best determined on.

WHEAL SOPHIA MINING COMPANY.

At a meeting of shareholders, held at the mine, on the 4th inst., the accounts were examined and passed, showing—Arrears due, 379l. 16s.; balance last account, 37l. 0s. 9d.; call, 128l.—544l. 16s. 9d.—By labour cost, Jan. and Feb., 61l. 6s. 10d.; merchants' bills, 46l. 18s. 9d.; amount due on forfeited shares, 185l. 6s.; arrears, 222l. 10s.; leaving balance in favour of shareholders, 29l. 0s. 2d.—It was resolved, that the next general meeting should be held in December next, when Capt. Luke will be more able to satisfy the shareholders as to the nature of the lode, and as to the future working of the mine.—The solicitor was desired to sue those adventurers who were in arrears; and a call of 5s. per share was made.—The following report, from Capt. Luke, was read:—

April 4.—Owing to the gear work not being forwarded in time, we shall not be able to put the engine to work before the beginning of next week, which will be a few days longer than we anticipated; then we shall commence forking the water with the engine, and in a few days resume sinking the shaft with a full pair of nine men, which is 44 fms. under the 12 fathom level. The ground is at present much the same, although in a few fathoms deeper we expect to be in the claystone which Capt. Spargo referred to in his report, leaving down from the top of the hill, and unbolting the hard ground, which

will give us an advantage of intersecting the Gossan lode with the lode we are now sinking on in their native strata, about 13 fathoms under the bottom of the present shaft, which junction, from the appearance and quality of the ore we raised in the lode we have worked upon, cannot leave any doubt of a favourable result, and a remuneration to every one for their outlay.

WHEAL TREMAYNE MINING COMPANY.

At a meeting of shareholders, held yesterday, at the offices, George-yard, Lombard-street, the accounts were examined and passed, showing—Balance last account, 430l. 15s. 9d.; copper ore sold, Feb., 186l. 7s. 5d.; ditto March, 180l. 0s. 6d.; tin sold, Feb., 543l. 5s. 3d.; ditto March, 947l. 10s. 3d.; ditto April, 791l. 19s. 2d.; lead ore sold, 17l. 19s. 2d.; arsenic, 63l. (less lord's dues, 65l. 16s. 1d.); West Wheal Providence water charge, 24l.; carriage, 24l. 9s. 4d.; sundries, 5l. 18s. 2d.—8052l. 7s. 11d.—By labour cost, Jan., 712l. 1s. 5d.; merchants' bills, 274l. 7s. 1d.; labour cost, Feb., 905l. 13s. 1d.; merchants' bills, 2032l. 17s. 8d.; leaving balance in favour of mine, 956l. 18s. 2d.; from which deduct dividend of 10s. per share (513l.), leaves a balance to next account of 444l. 18s. 2d.—The issue of certificates of shares having been found to be attended with considerable trouble, expense, and irregularity, it was resolved, that such issue be discontinued; also, that the agents forward a report every fortnight, to be in London each alternate Wednesday morning.

The following report, from Capt. Bryant and Phillips, was read:—

April 17.—At Laurie's shaft, in the 30 ft. level west on north lode, the lode is very large, yielding a little tin; there has been a cross-cut driven north, 6 fms. from this level, in order to prove if there was any more lode in that direction; not finding anything worth, it has been discontinued. At Madron's, in the 60 ft. level west, the lode is 2 ft. wide, worth 54 ft. per fm. In the 60 east, the lode is 3 ft. wide—tribute ground. In the 70 ft. level west, the lode is 3 ft. wide—tribute ground. This may be expected to improve shortly, it being within a short distance of the tin ground, going down in the level above. The lode is much as in the level. There have been two cross-cuts driven south from this lode, about 5 fms. each, one at the 54 ft. level, and another at the 70 ft. level, which has intersected a lode from 4 in. to 1 ft. wide; so far, it has proved unproductive. At Thomas's shaft, in the 50 ft. level west, the lode is very small and poor. At Painter's, in the 30 ft. level east, on the canter lode, the lode is from 6 in. to 1 ft. wide, chiefly composed of flookan, with quartz and mandle—unproductive. In the 30 ft. level west, on the south lode, the lode is 1 ft. 6 in. wide, yielding stones of ore—it has a very promising appearance; the slopes in the back of this level are producing 2 tons of ore per fathom. The new shaft, in the 53 ft. level, east on Allen's branch, is worth 77 ft. per fathom. Allen's shaft, in the 53 ft. level, east on Allen's branch, is worth 30l. per fm.; the 53, per fm. The boundary shaft is completed to within 6 fms. of the 35 ft. level, and from the 35 to the 45, sinking under the 45, is worth 20l. per fm.; the rise against ditto, from the 53 ft. level, is worth 20l. per fm. Our tribute department continues to look well, and we feel much pleasure in stating that a similar dividend may be expected at the next account.

NORTH BULLER MINE.—A meeting of the original adventurers in this undertaking was held at the office of the company, Old Broad-street, on the 6th inst., when a committee of management was formed, and a call of 7s. 6d. per share made, payable on the 25th inst. Mr. R. H. Pike, of Camborne, was appointed purser, and the selection of the son of Capt. Minery, of Caru Brea, as captain of this mine, confirmed.

TRELYON CONSOLS.—A meeting of shareholders was held on Thursday week, at the offices of Mr. Rodda, Penzance, when it was resolved to bring up Wheal Margary deep adit, which will unwater the lode at present worked on, and two others, which are within a few fathoms of each other, at a depth of 65 fathoms. The mine was reported to be looking well, and has nearly met her cost for several months past.

THE BWLCH CONSOLIDATED MINES.

Sir,—A few weeks ago, in reporting upon these mines, I made an observation upon the method of working, which I had no idea would have been made public. It was to the effect, that we did not find stoping the ground 60 feet underhand to be safe, mentioning that, in this particular, I feared that Capt. Prince and Middleton's views could not be advantageously carried out in taking away the ore ground. I regret if this should have caused any feeling on the part of both or either of these gentlemen, as we are none of us infallible; and my object in making the remark was not to cast censure upon the well-earned high standing of these gentlemen. The truth is that, in Cardiganshire generally, the grain of the slate is from the south-west to the north-east, where the divisional planes follow each other at infinitesimal distances. These planes generally dip to the south eastward. Intersecting those planes, the slate is usually divided by a number of planes, running nearly upon the magnetic meridian, and dipping to the westward; the consequence is that, by the intersection of those two lines of planes, the walls of veins, bearing in an easterly and westerly direction, are divided into angular pieces of rock, with their bases towards the lodes; and when the metalliferous ores are removed, these fragments, as a matter of course, fall into the ground so excavated; and more particularly so where the vein has an inclination, which is the case with the Bwlch vein, to the extent of 20 in. in a fathom. I should suppose there are conditions of lodes and country which would not be liable to similar circumstances—for instance, where the slate and vein are both vertical, or where the layers of rock on the south side being more or less horizontal, form an acute angle with the south wall of the lode—the north lode being crystallised during the operation of the crystallising influence that filled the vein, or in the last place where the lode is formed in a crystalline rock. Thus—



I did not mean to infer that there was any impracticability about the plans suggested; but that they could not be applied with safety to the Bwlch Mine. Goginan, April 18, 1849. MATTHEW FRANCIS.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

CARADON VALE.—Several of the poor miners, who formerly worked this mine on their own account, have taken up shares in the newly-formed company. It is always a good sign when the common miners adventure, as they are the best judges of the situation of great mineral deposits.

THE ROCHE ROCK TIN MINE has been taken by some respectable parties, who purpose fully to develop the resources of the mine. The capital to be raised will not exceed 5000l., which is required chiefly to put up a powerful engine, and sink to a greater depth. She is now in full work, and paying, with five water-wheels continually going. We are informed that a great number of the shares are already subscribed for.

WEST POLGOOTH.—They are much improving here; things generally are looking very well.

WHEAL TOM (STOKE CLINLAND).—They are driving on the gossan lode east, near the gate, in the eastern part, where the lode is cut, and will very shortly find by its bearing where to cut it further; in the east the lode is much larger than where they commenced, and of a splendid gossan as ever was seen. They will certainly have a good mine: it is a vast, rich copper gossan.

WHEAL VINCENT.—In our last Number, we inserted a long report from the agent of this mine (Capt. Spargo), setting forth its present appearances and future; and we have since received a report from Mr. Adam Murray, jun., entering still more minutely into details, the extreme length of which, however, prevents its insertion. He describes its situation in the Rough Tor and Willey Granite range, near the north-eastern boundary of the hills. The stratum generally ordinary granite, quartz, mica, and schist, somewhat stratiform, dipping in broad layers towards the north-east, underlying the granite, and constituted of semi-decomposed and very hard granite, intersected by channels of felsitic granite in a nearly vertical direction. It is also intersected by numerous tin lodes, varying in their direction, and crossing each other, and workings are then described, and it is stated, that to supersede the expense of either steam or water-power, a wind machine has been erected, the efficiency of which had not yet been tested. The works necessary to be carried out are the expense covered by ore raised; that the appearances warrant the erection of a substantial engine, and that the writer considers the mine a good speculation, and a fair investment.

MINING IN SPAIN.—According to an official return lately issued, mining enterprise has been making most satisfactory advance. In the last five years 15 concessions have been granted by the Government in the Asturias and other parts of the north of Spain, which, from the facilities now afforded for the admission of machinery at an ad valorem duty, are being economically and satisfactorily explored. The extensive coal-fields still remain but partially worked, Government are turning their attention to this, and the formation of some roads will alone be the means of bringing the coal districts into profitable working.

IRON TRADE IN BELGIUM.—By the last accounts from the iron districts, it appears that the furnaces generally are in active operation, and that lately some tolerably extensive orders have been received, both for home consumption and exportation. Zinc has also been in demand, principally for exportation to America. An extensive lead mine is said to have been discovered in the vicinity of Philippeville.

LATEST CURRENT PRICES OF METALS.

LONDON, APRIL 19, 1850.

ENGLISH IRON.	per ton.	ENGLISH LEAD.	per ton.
Bar, bolt, square, London.	25 15 0	Tin.	27 10 0
Mail rods.	25 15 0	Old copper.	per lb. 8 1/2 0
Hoops.	25 15 0	Yellow Metal Sheathing.	per lb. 8 1/2 0
Sheets (single).	25 15 0	FOREIGN COPPER.	
Bars, at Cardiff & Newport.	25 15 0	Chili.	per lb. 9 0 0
Refined metal, Wales.	25 15 0		
Do. anthracite.	25 15 0		
Pigs in Wales.	25 15 0		
Do. do. forge.	25 15 0		
Do. No. 1, Clyde.	25 15 0		
Blowitt's Patent Refined Iron	25 15 0		
for bars, rails, &c., free on	25 15 0		
board at Newport.	25 15 0		
Do. do. for tin-plates, boiler	25 15 0		
plates, &c., ditto.	25 15 0		
Stirling's Patent.	25 15 0		
Toughened Pigs in Wales.	25 15 0		
Staffordshire bars, at the works	25 15 0		
Pigs, in Staffordshire.	25 15 0		
Rails.	25 15 0		
Chairs.	25 15 0		
FOREIGN IRON.			
Swedish.	11 10 13 0		
CCND.	11 10 13 0		
PSI.	11 10 13 0		
Gouriet.	11 10 13 0		
Archangel.	11 10 13 0		
FOREIGN STEEL.			
Swedish keg.	14 0 14 15		
Ditto faggot.	15 0		
ENGLISH COPPER.			
Sheets, sheathing, & bolts, p. lb.	0 10 0		
Tough cake.	per ton 88 10 0		
Terms.—a, 6 months, or 2 1/2 per cent. dis.; b, ditto; c, ditto; d, 6 months, or 3 per cent. dis.; e, 6 months, or 2 1/2 per cent. dis.; f, ditto; g, ditto; h, ditto; i, net cash; m, 3 months, or 1 1/2 p. c. dis.; n, ditto, 1 1/2 dis.			

LIVERPOOL, APRIL 19.—There was no change of importance to report in the state of this market since Friday last. There has been only a limited business done, and prices of all descriptions of manufactured iron are without any material alteration. The orders received by the American steamer on Tuesday not being so large as anticipated, has caused disappointment in some quarters.

GLASGOW, APRIL 18.—We have to report a very dull market in pig-iron. There is a seeming indisposition to do business on the part of both holders and buyers. We quote the price of mixed Nos. at 49s. 6d. to 49s. cash.

The stocks of Scotch pig-iron are stated to be heavier now than they have been for ten years past; and if we may take diminished exports as a criterion of increasing stocks, it would appear from the following returns, that a large additional amount is monthly compared to that on hand:—

Comparative Exports of Pig-Iron from Broomfield and Port-Dundas, during the months of January, February, and March, for the last five years.	1846.	1847.	1848.	1849.	1850.
January.	1846.	1847.	1848.	1849.	1850.
Broomfield.	7,411	14,300	10,482	9,378	7,397
Port-Dundas and Kirkintilloch.	9,043	7,390	7,073	5,529	8,878
Total, January.	16,454	21,690	17,555	14,907	16,275
February.	1846.	1847.	1848.	1849.	1850.
Broomfield.	7,595	9,537	13,903	10,480	6,238
Port-Dundas and Kirkintilloch.	9,407	8,490	12,127	5,160	2,833
Total, February.	17,002	18,027	26,030	15,640	9,071
March.	1846.	1847.	1848.	1849.	1850.
Broomfield.	11,326	12,734	15,861	17,914	8,778
Port-Dundas and Kirkintilloch.	15,657	14,917	20,417	4,755	8,028
Total, March.	26,983	27,651	36,278	22,669	16,806

THE SULPHUR TRADE.—Letters from Messina furnish some particulars relative to the sulphur trade, and the causes which have contributed to the high rates now ruling for that article in the Sicilian markets. The duty of two tari per cantar, which was levied on the 1st of January last, on the export of sulphur, made no impression on the price of that mineral on the spot. This is accounted for by the unprecedentedly small stock at the period when this import came into operation, and by the numerous orders which were received for the article from various parts at the end of 1849, and the beginning of the present year, mostly requiring to be promptly executed. The consequence was, that the entire disposable stock, and all that could be delivered till June, was bought up and contracted for at constantly advancing prices, the greater part of which has been for Russian account, and intended for St. Petersburg, where this article, being in few hands, the price has by accord been run up to an unreasonably high figure; though it may be doubted if the shipments to the north will have been effected, and then will commence the supplies and shipments for other countries, from whence the demand is stated to be on the increase. The speculators buy up all the sulphur that can be brought from the mines to the coast, so that present operations were being conducted with considerable activity at this article; and although buyers must yield to the high pretensions of the few holders of the mines, owing to the badness of the roads, and the fact that the horses and cattle usually employed in conveyance were at work in the fields, considerable difficulty was experienced in the transport of sulphur. For these reasons, the supplies of sulphur on the coast for some time to come were likely to be limited, and the low prices consequent upon heavy stocks, which at times amounted to one million cantars, are not likely to recur whilst the demand keeps pace with the supply.

LOCOMOTIVE ENGINES.—We stated in last week's Journal that the Austrian Government had published in Berlin an offer of a prize of 20,000 full weight imperial ducats for the best locomotive railway engine, constructed to run on the line about to be carried over the ridge of the Semmering Mountains, on the frontiers of Lower Austria and Styria, at a height of 464 Vienna fathoms above the level of the Adriatic Sea. From the highest point to the station of Gloggnitz, in Lower Austria, at one end of the railway, the fall is 243-2 fathoms, and the distance, following the course of the railway, 3-8 miles. From the highest point to the station of Mürzzuschlag, in Styria, at the other end of the railway, the fall is 114-2 fathoms, and the distance by the railway 1-6 mile. The greatest rise of the different gradients is 1 in 40 of the length; and the longest of the gradients is 1671 fathoms. The shortest radius of the different curves is 100 fathoms; but in the steepest rise of 1 in 40, no radius is shorter than 150 fathoms. The longest curve with this radius, and at the greatest rise, extends 203 fathoms. One of the chief qualifications for the required locomotive is, that it should be capable of transporting, in ordinarily favourable states of the weather, a gross weight of 2500 Vienna measures, exclusive of the tender, at a speed of 1 1/2 Austrian miles an hour (4000 Vienna fathoms to the mile) over the greatest ascents at the most unfavourable curves. The locomotive with still greater capability would obtain the preference. It has been determined that the Austrian Administration of State, besides the acquisition of the prize locomotive, should also purchase five other locomotives, at amounts from 6000 to 10,000 full weight imperial ducats. The regulations to be observed in the choice of the locomotives have also been fixed.

HEREFORDSHIRE, FOREST OF DEAN, AND GLOUCESTER RAILWAY.—During the last few days, deputations, consisting of Mr. Cornwell Lewis, M.P., Mr. Wegg Prosser, M.P., Lieut.-Col. Clifford, M.P., Mr. Vaughan, Mr. Wallace Hall, and Mr. Richardson, have on two occasions waited upon the directors of the Great Western Company, for the purpose of effecting an arrangement for the transfer of the Parliamentary powers of the Monmouth and Herefordshire, Forest of Dean, and Gloucester Railway, to the projectors of the Herefordshire, Forest of Dean, and Gloucester Railway, before they expire in August next. The directors of the Great Western Company expressed their earnest desire to afford every assistance and facility to the projectors of the new company, for enabling them to carry out their undertaking. In the course of the interviews, the whole subject of the proposed line was discussed, and it was ultimately agreed that two gentlemen on each side, with the solicitors and engineers of both companies, should meet, and enter fully into the question, as to the engineering details of the line from Ross to the Grange, with the view of finally settling the matter.

SHERBORNE MINERAL RAILWAY.—Petitions for the winding-up of this company's affairs have been served on the provisional directors, pursuant to an order to that effect from the Court of Chancery. The petitioners state, on affidavit, that the undertaking was started in 1845, with a proposed capital of 85,000l.; that Mr. Sergeant Adams, of Wood Lodge, Shooter's Hill, and Mr. Frederick Lyon Price, acted as provisional committee-men, allotted the shares and received deposits; that these have in their hands, and are otherwise liable to account for, assets to a very large amount, but have never rendered to the shareholders any proper or sufficient accounts of the receipts and payments.

FALL OF A WIRE SUSPENSION BRIDGE.—A dreadful accident occurred to the 11th Regiment of Light Infantry of France, on Tuesday last, by the fall of the wire suspension bridge over the Loire, which separates the town into two districts, while the men were passing over it. It appears that the bridge was considered perfectly safe, but that a severe storm was raging; and at the moment when the whole of the bridge was covered with the men in full march and, consequently, causing great vibration, a whirlwind-like gust took the bridge full on its side, the wire suspension-ropes gave way, and the whole fell into the rapid stream beneath. It is variously stated that from 200 to 400 men have lost their lives; but as the battalion is known to have 282 men missing, the number is, doubtless, above 300, among whom were some persons from the town, as the bodies of a servant and two children have been found. The colonel, who was on horseback, fell with the rest; but his horse swam ashore, and thus saved his own life, and that of his master. The regiment was bound for Algeria; and several of the soldiers' wives and families, who were going with the regiments, fell victims. It is stated to be the intention of Government to present a bill for granting assistance to the bereaved families of the deceased. The suspension bridge which has fallen was built 12 years ago, but a year since underwent repairs, which cost the town about 36,000 fr. The suspending chains at first gave way on one side only, when the soldiers on the bridge, feeling the movement of the floor of the bridge, naturally rushed to the other side, when the chains there also gave way, and the whole floor of the bridge fell.

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning eleven o'clock.

Bank Stock, 3 per Cent., 207 1/2	Belgian, 4 1/2 per Cent., 105 1/2
3 per Cent. Reduced Ann., 98 1/2	Dutch, 3 1/2 per Cent., 105 1/2
3 per Cent. Consols Ann., 98 1/2	Brazilian, 5 per Cent., 26 1/2
4 1/2 per Cent. Ann., 97 1/2	Chilian, 5 per Cent., 26 1/2
Long Annuities, 97 1/2	Mexican 5 per Cent., 26 1/2
India Stock, 10 1/2 per Cent., 266	Russian, 5 per Cent., 106 1/2
3 per Cent. Con. for 9th May 96 1/2	Spanish, 5 per Cent., 18 1/2
Sheep. Bills, 1000/7, 14d. 68s 70 pns.	Ditto 3 per Cent., 86 1/2

MINES.—Although the share market has not been so animated this week, still, upon the whole, an average amount of business appears to have been transacted in our home mines, while in foreign mining shares there has been an unusual briskness, and an active inquiry is being kept up.

Trelawny, Heignton Down, Bedford United, and Mary Ann shares have been much inquired for, and transactions in each taken place.

Shares in the following mines have changed hands since our last:—Devon Great Consols, Trevisey and Barrier, Treleigh, Mary Ann, Trelawny, South Tolgus, North Buller, Trehan, Levant, Herodsfoot, Gustavus, Pendarves, Stray Park, Tincroft, Treloy, East Tamar, Bedford United, South Tamar, Wellington Mines, West Wheel Frances, Heignton Down, Cwm Erfin, Wheel Langford, Wheel Trevel, &c.

We find that the mines in the far west are generally in a satisfactory state, and a considerable number of shares have changed hands during the last fortnight. West Wheel Treasury and Alfred Consols have been much in demand, and buyers have paid an advance. Transactions in Wheel Reeth have taken place at our quotations, and an advance is talked of; the profits for the last two months are estimated at upwards of 1000/2. In Penzance Consols a large amount of business has been done at firm prices. Wheel Bal shares have been inquired after, and Spearhead Consols is said never to have been so prosperous a state as at present.

At the meeting of Stray Park, Camborne Vein, and Wheel Francis Mines, the statements of accounts for Jan. and Feb. showed a profit of 605/2 for the two months, which, added to the balance from last account, allowed a dividend of 500/2, being 10s. per share, carrying to credit of next account 494/2. 12s. 8d., an excess over last account of 305/2. The agent's report represents the mines in a progressively improving position, estimating, from present prospects, that the next sampling will amount to 600 tons.

At Bedford United Mines meeting, the account of expenditure and receipts was presented, showing balance of 1228/2. 12s. 7d. in favour of the mine. A dividend of 1000/2 was declared, amounting to 5s. per share.

At the Penzance Consols account for Jan. and Feb., the first dividend, being 2s. 6d. per share, was declared, after payment of which a credit of 163/2. 8s. 1d. was carried to the next account. The report from the mine is very favourable.

At the Wheel Golden Consols meeting, the accounts presented showed balance in favour of adventurers of 304/2. 10s., and the report read represented the mine in a very satisfactory condition.

At Wheel Tremayne account, held yesterday, a dividend of 512/2 was declared for February and March, being 10s. per share, leaving a balance of 444/2. 18s. 2d. to credit of next account. The agent's report of the mine was highly gratifying.

At the Levant bi-monthly meeting, a dividend of 51/2 per share was declared. At the Condurrow two-monthly account, a dividend of 2/2 per share was declared. The ores sold amounted to 2004/2. 12s. 1d., and a balance of 209/2. 18s. 9d. was carried to next account, after payment of the dividend, amounting to 512/2.

At the Heignton Down meeting, a call of 2s. 6d. per share was deemed necessary. By the statement of accounts, we find a balance of 356/2. 16s. 8d. in favour of the adventurers; but on account of payments and receipts before the next account (June 11), there will be a balance of 239/2. 8s. 4d. against the mine, to meet which the call is made.

At the adjourned meeting of the South Wheel Josiah adventurers the balance-sheet presented 71/2. 5s. 11d., in favour of the company, giving credit for arrears of calls. The liabilities are made up to end of March, when a credit of 57/2. 3s. 10d. appears. A call of 10s. per share was made. The prospects of the mine are represented as much improved.

At a meeting of the original shareholders in North Buller, a call of 7s. 6d. per share was made, and the official agents of the mine appointed.

At a meeting of adventurers in Tywarthayle and Nancekuke, held on Tuesday, the accounts for Jan. and Feb. last, were examined and passed, showing balance against adventurers of 1261/2. 7s. 9d.

At Wheel Sophia meeting, a balance of 29/2 was found in favour of the company, and a call of 5s. per share was made.

At Herodsfoot meeting the accounts exhibited a profit of 594/2. 13s. 7d. on the last five months' working. The present position of the mine is very gratifying, showing that a profit of 200/2 per month can be realised.

In foreign Mines, there has been considerable animation during the week. The Santiago Mines are represented as having materially improved, and a very valuable discovery made—the shares, consequently, have been in great demand, and several transactions at an advanced price have been made. St. John del Rey, Cobre, United Mexican, and Imperial Brazilian, have been in request. Copiapo, Australasian, Barossa Range, Linars, and National Brazilians, have also been done.

The National Brazilian advices are to the 16th Feb., and the prospects continue as cheering as last reported, and the general indications highly favourable. The returns from Cocas, from the 5th to 14th February is, mks. 5 3 4, and Calaba from 28th Jan. to 16th Feb., mks. 8 3 6—mks. 8 7 2 23.

The Imperial Brazilian Mining Association have received letters to the 13th Feb. Much encouragement to anticipate considerable improvements is presented by the reports; but a large amount of labour in the repairs of machinery, &c., is required, to bring the same into an efficient state of working, before the recent discoveries can be followed up. At Gongo some considerable improvements had been made in the returns. A remittance of 118 lbs. of gold was to have left the mines for Rio during the early part of March. Gold report from the mines of Gongo Soco and Bananal from 1st to 13th February, 5 lbs. 6 ozs. 12 dwts.

Despatches have been received by the Australian Mining Company, bringing reports from the Tungukillo Mine to 12th Jan. The estate had been surveyed, and is stated to contain a soil highly capable of profitable cultivation. The mine has been opened to a 50 ft. level, and the ore found to improve in quantity and quality in depth. The engine-house was being erected, and a substantial engine expected to be at work in May next. We refer to the accounts in another column.

The United Mexican Company's accounts from the mines continue of the same satisfactory character as those of the preceding months. The Mine of Rayas is described as more prosperous than for many months past, and the new mines progressing towards development.

The Linars letters are to the 10th inst., and continues to show the progress of the operations as very gratifying, and that they are now closely approaching the bottom of the former working, with a very good lode in sight. Preparations are being made for the transit of ore to England—of which they have about 100 tons.

The Worthing Mining Company have received the agent's report to the 27th December, stating that their operations were progressing in a very favourable manner—extracts will be found elsewhere.

From letters received yesterday by the Barossa Range Mining Company, we learn that an important discovery has been made. The particulars we have not yet received; but shall give full details in our next. An active inquiry is made for the shares.

By the India mail, we are advised that the metal markets of the East are generally in a very favourable position. The Bombay letters are to the 15th March, and represent an improvement in copper, lead, and tin plates. At Calcutta, a fair amount of business has been transacted, considering the season; and some large sales of lead have taken place.

HULL, THURSDAY.—The fall in shares has at length received a check, and we have the pleasure to report an improved market. An alteration has been made in the mode of settlement on the London Stock Exchange, which has long been wanted, and which we think will be productive of benefit. Hull and Selby, 95 1/2 to 96 1/2; halves, 47 1/2 to 47 1/2 10s.

CONTRACTS FOR COALS.—The Commissioners of the Admiralty will be ready, on the 30th inst., to receive tenders for delivering at Valparaiso and Callao, or at such intermediate port as may be directed, 1000 tons of Welsh coals for her Majesty's steam vessels; also, for delivery at Trincomalee, 500 tons of Welsh coals for her Majesty's steam vessels. On the 7th May, for supplying the dockyards, Admiralty, and marine offices, with the quantities of coals required.

COALS FOR CEYLON.—The East India Company will receive tenders, on the 24th inst., for 500 tons, to be delivered at Point de Galle, Ceylon—West Hartley, Carr's, Buddle's, Davidson's, Hartlepool, Ravensworth's, Stewart's Wall's-End Steam Coal, and Glasgow Hard Splint—screwed.

The contract entered into by the Peninsular and Oriental Steam Navigation Company with the Government for the monthly conveyance of the mails, by steam-packet, from Southampton to the Cape of Good Hope, Ceylon, India, Australia, and New Zealand, is likely to cause a demand of coals for the different stations, until the extensive coal mines at the Cape, Borneo, &c., can be worked, for which purpose companies are being formed, which will ultimately lead to a rapid progress of steam navigation in those seas.

SOFT PIG LEAD.—The 300 tons of soft pig lead, advertised in last week's Journal, to be sold at the Clarendon Rooms, Liverpool, on Wednesday, were offered by public auction; but, as the highest bid made was 17/2 12s. 6d. for the first lot of 50 tons, the whole was withdrawn.

THAMES TUNNEL COMPANY

The number of passengers who passed through the Tunnel in the week ending April 13, was—No. of passengers, 16,226.—Amount of money, £27 12s. 2d.

PRICES OF MINING SHARES.

BRITISH MINES.				BRITISH MINES—continued.			
Shares.	Company.	Paid.	Price.	Shares.	Company.	Paid.	Price.
1000	Aberystwyth	9	—	1100	South Dolcoath	8	—
1024	Alfred Consols	24 1/2	32 1/2	128	South Caradon	5	—
1024	Arundell	24 1/2	—	256	St. Ives Consols	10	—
1024	Barrow United Mines	9 1/2	—	256	St. Ives Consols	10	—
1024	Bath & Clifton	9 1/2	—	1024	South Plain Wood	1	—
128	Bath & Clifton	9 1/2	—	300	South Speed	3	—
3500	Barristown	5 1/2	4 1/2	256	South Tolgus	15	100 150
3500	Barrow	9 1/2	—	256	South Trelawny	294 1/2	—
6000	Bealbury	1	—	3000	South Wales Mining Co.	1	12 2
6000	Bedford	5 1/2	—	256	South Wheel Basset	10 1/2	—
1024	Bethel & Vitrif	10 1/2	6 1/2	128	St. Ives Consols	10	—
6000	Black Craig & Craigton	10	—	256	St. Ives Consols	10	—
6000	Blenavon	50	10	256	St. Ives Consols	10	—
1000	Blissland Consols	1	—	10000	Southern & Western, Irish	2 1/2	—
1024	Bodmin Consols	3	—	280	Spoarne Moor	30	—
8000	Bodmin Moor Consols	1	—	128	Spoarne Consols	10	—
6000	Bosom	5 1/2	10 1/2	256	St. Aubyn and Grylls	24 1/2	—
1000	Boston	18 1/2	70	94	St. Ives Consols	3	—
128	Brower	5	—	128	St. Ives Consols	3	—
10000	British Iron, New, regis.	12	8	999	St. Ives Consols	3	—
—	Ditto ditto, scrip.	10	10	1000	Stray Park	43	25 1/2
2400	Bryn-Arian	2	3 1/2	9600	Tamar Consols	3	—
107	Budnick Consols	52 1/2	12	1024	Tavoy Consols	8 1/2	3 1/2
1000	Calington	22	5 1/2	6000	Tincroft	7	12 1/2
1000	Camberton United Mines	1	—	240	Tolcarney	18	20 3/2
30000	Cameron's Steam Coal	7	—	5000	Treasure	1	—
256	Caradon Mines	22 1/2	10	256	Treasure	3 1/2	7 1/2
256	Caradon United	24	5 1/2	256	Trelawny	14	30 3/2
1000	Caradon	5	12 1/2	5000	Trevel Consols	6	2 1/2
472	Caradon W. Hooper	5 1/2	4 1/2	200	Trelawny Consols	—	2 1/2
1000	Carn Brea	10	110 120	29000	Trevel Consols	3	—
1000	Carton Consols	1	—	1024	Trevel Consols	3	—
114	Carton Consols	220	—	95	Trevel Consols	10	9 1/2
500	Comblawn	5 1/2	4 1/2	120	Trevel Consols	5	2 1/2
128	Confort	45	50	120	Trevel Consols	5	2 1/2
256	Condurow	20	120 5	512	Trevel Consols	2	2 1/2
3500	Cook's Kitchen	14	7 1/2	512	Trevel Consols	2	2 1/2
1000	Coombe Valley Quarry	5	—	1000	Tylywyd	5	—
1000	Copper Bottom	5	—	200	Tylywyd	50	150 160
1000	Cranborne	9	10	256	West Buller	10	—
121	Craddock Moor	23 1/2	5	128	West Buller	10	—
428	Craig Braws	120	30	256	West Caradon	20	93 96
500	Cubert Mine	12 1/2	—	512	West Fowey Consols	40	12
1000	Cwm Erfin	4	3 1/2	1024	West Fowey Consols	—	—
1000	Daren	2	7 1/2	2500	West Fowey Consols	5	6 1/2
7100	Derwent	10	3	Ditto Notes	—	—	—
503	Devon & Courtney Cons.	11 1/2	2 1/2	512	West Fowey Consols	5	6 1/2
1000	Devon Great Consols	1	225	200	West Fowey Consols	5	6 1/2
1000	Dunroed	50	450 500	120	West Fowey Consols	5	6 1/2
182	Dulcoath	30	20	512	West Fowey Consols	5	6 1/2
2560	Drake Wall	5 1/2	3 1/2	256	West Fowey Consols	5	6 1/2
10000	Durham County Coal	45	9	3845	West Fowey Consols	12	2 1/2
3000	Dyfnwryn	10	15	540	West Fowey Consols	12	2 1/2
2500	East Barch Tor	3	3	1024	West Fowey Consols	7	6 1/2
1024	East Barch Tor	3	3	1024	West Fowey Consols	7	6 1/2
1024	East Barch Tor	3	3	1024	West Fowey Consols	7	6 1/2
256	East Godolphin	10 1/2	13	5000	Wicklow Copper and Sulphur Mines	3	3 1/2
4300	East Gwinn Lake Junc.	8	—	107	Wheal Adams	130	150
128	East Pool	15	60 5 7 1/2	1000	Wheal Agar	—	—
9000	East Tamar Consols	12	1 1/2	256	Wheal Agar	—	—
256	East Tolgus	15	5 1/2	256	Wheal Agar	—	—
128	East Tywarthayle	—	—	256	Wheal Agar	—	—
94	East Wheel Consols	50	450 500	128	Wheal Agar	—	—
256	East Wheel Consols	24 1/2	2 1/2	512	Wheal Anna Maria	7	—
—	East of Scotland Iron Co.	5	7 1/2	120	Wheal Bal	5 1/2	12
1280	Espar Loe	2	4 1/2	256	Wheal Benny	14 1/2	2
248	Exmoor W. H. Ellis	11	10 1/2	1024	Wheal Bray	11 1/2	—
494	Fowey Consols	40	45	2124	Wheal Calstock	9	10
1024	Freid Lywyd Mines	14 1/2	3 1/2	256	Wheal Calstock	9	10
1024	Freid Lywyd Mines	14 1/2	3 1/2	256	Wheal Calstock	9	10
4000	Freid Lywyd Mines	14 1/2	3 1/2	256	Wheal Calstock	9	10
2500	Gango Consols (Tin)	4	1 1/2	182	Wheal Elizabeth	9	40 50
256	Gango Consols (Tin)	4	1 1/2	256	Wheal Fortescue	15	—
128	Gango Consols (Tin)	4	1 1/2	100	Wheal Friendly	70	66 1/2
256	Gango Consols (Tin)	4	1 1/2	388	Wheal Francis	27	10 11
96	Gango Consols (Tin)	10000	250	1000	Wheal Grogue	38	5 1/2
512	Gr. W. H. Houghton Tor	24 1/2	20	100	Wheal Henry	—	35 45
6000	Grova State Company	5	5	6000	Wheal Langford	—	2 1/2
1024	Gustavus Mines	3	3 1/2	1094	Wheal Lawrence	34	3 1/2
256	Hawkmor	12 1/2	70	112	Wheal Margaret	79	190
6000	Heignton Down Cons.	21	3 1/2	512	Wheal Mary Ann	5	39 40
1500	Hennock Silver-Lead	21 1/2	5	5000	Wheal May	—	—
4500	Hennock Iron & Tin	21 1/2	5	360	Wheal Oak	25 1/2	5
512	Herodsfoot	16	14 1/2	3000	Wheal Penhale	18	6
10000	Hibernian	12 1/2	13	210	Wheal Penhale	18	6
1024	Holbush	22	13	210	Wheal Penhale	18	6
2200	Kewick	10	2 3	120	Wheal Penhale	18	6
1024	Kingsett and Bedford	14	4 1/2	198	Wheal Penhale	18	6
787	Kingsett and Bedford	14	4 1/2	1056	Wheal Sarah	44 1/2	7
2018	Lanheroes W. H. Maria	9	—	612	Wheal Sophia	55 1/2	6
252	Lanarth Consols	—	7 1/2	128	Wheal Squire (St. Erth)	—	5
256	Lant Consols	47	25 26	128	Wheal St. Ann	30	35
160	Levant	—	—	1100	Wheal Trescott	64 1/2	7
1000	Lewis	17	9 1/2	256	Wheal Trevel	7 1/2	90 92 1/2
1000	Livynmales	9	10	256	Wheal Trevel	7 1/2	90 92 1/2
3000	Livyn Iron	50	50	1024	Wheal Tremayne	9 1/2	10
256	Livyn Iron	50	50	256	Wheal Trevel	7 1/2	90 92 1/2
256	Livyn Iron	50	50	1000	Wheal Trevel	7 1/2	90 92 1/2
6000	Marke Valley	10	1	128	Wheal Vio (Perranz)	14 1/2	11
5000	Mendip Hills	34 1/2	3 1/2	184	Wheal Vyvan	—	60
128	Methia	34	—	5000	Alten Mining Company	14	2 1/2
20000	Mining Co. of Ireland	14	2 1/2	15000	Asturian Mining Co.	15	—
100	North Buller	45	500	20000	Australian	4	4 1/2
140	North Itoskar	55	150	6000	Barossa Range	18	1 1/2
252	North W. Leisur	14	2	10000	Brazilian Imperial	23	6 1/2
512	North Wheel Vor	—	2 1/2	10000	Brazilian Imperial	23	6 1/2
18000	Northern Coal Co.	23	2	10000	Brazilian Imperial	23	6 1/2
128	Par Consols	55 1/2	650	10000	Brazilian Imperial	23	6 1/2
1024	Pendares & St. Aubyn	4	—	10000	Brazilian Imperial	23	6 1/2

NOTICES TO CORRESPONDENTS.

* * We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

ASTURIAN MINING COMPANY.—We have received several communications on the unfortunate results of the operations of this company, signed "An Unfortunate Holder," "A Victim," "One of the Sufferers," &c., and regret exceedingly that we can hold out no hopes, unless the directors and liquidators obtain sufficient funds in time to prevent legal proceedings being had recourse to in Spain for bills returned protested. It was highly desirable that this should have been prevented, for if once the Spanish creditors got possession of the property, it is a question if any thing will be realised by the unfortunate shareholders, after an outlay of 200,000*l.* and upwards; and with the mines, machinery, and materials, still worth to any company for working from 80,000*l.* to 100,000*l.* It is a melancholy reflection, that in the present position of the works a outlay of 5000*l.* would realise a return of at least 10,000*l.* per annum on the manufacture of iron; and it is surely would have been good policy on the part of shareholders to have raised this sum, which would probably have proved the salvation of the company, seeing that parties who have not paid up the 17*½* per share will undoubtedly be compelled to pay on winding up in the Court of Chancery. Even the absence of an instrument, where shares are deposited on mortgage or as security, it is now held, does not take away the liability of holders of such shares under the Winding-up Act; and many who have flattered themselves no proceedings can affect their pockets, will find themselves woefully mistaken. We refer to our report of the meeting, and some remarks, in another column.

WHEAL SAMSON.—We have received several communications allusive to the remarks on this adventure which appeared in last week's Journal; but the claims on our space prevents us taking more than a slight notice of the subject. The letters of Mr. F. S. Thomas enter fully into the questioned connexion of Mr. P. N. Johnson with the mine; and, from a note we have seen, which has been written by the latter gentleman during the past week, it appears certain that, though the matter had passed from his recollection, Mr. P. N. Johnson was consulted respecting Wheal Samson by Mr. F. S. Thomas and Sergeant Halcorn, and that he designated it as "a most interesting speculation," but which his then engagements prevented him taking an interest in. We state this much in fairness to the parties concerned, but all future reference to the dispute must be through our advertising columns. The legitimate reports from the mining capitalists, of course, will find ready insertion among our Mining Correspondence.

THE STEAM-HAMMER AT WOLVERTON.—Sir: I was a little amused on reading in your last week's Journal the notice of the steam-hammer at Wolverton, and shall feel obliged if the "Ballast Engine Cleaner" can say if the extra large locomotive engine made there cost anything over 3000*l.*? And also, if the company's books show what it really did cost? And, further, if the said engine has yet shrunk in its unwieldy sides, so as to be able to pass by the platforms of the various stations? And still further, if it has yet become light enough to run on the line without deflecting the rails to a dangerous and injurious amount? And, lastly, is it likely to be ever of any use to the company; and if so, when?—**ENGINEER: Northampton, April 16.**

"A. B." (Glamorgan-shire).—The official reports on the coal mines consist of that of the Committee of the House of Commons, 1843; on Lord Ashley's Bill for the Prevention of the Employment of Women and Young Children in Mines, in 1842; that of the South Shields Committee, formed after the dreadful explosion at the Eldon Colliery, in 1839, and published in 1843; Mr. Freeman's Annual Reports; and the voluminous report of the Committee of the House of Lords, published in July last. We know of no Government reports on the iron mines or its manufacture, except that recently noticed in our columns, on the application of iron to railway structures. The best works to be consulted are Massey on the Manufacture of Iron, and Scrivenor's History of the Iron Trade, from the Earliest to the Present Time. The best information as to railways, which we are aware of, will be found in Tuck's Railway Shareholders' Manual; Scrivenor's Railways of the United Kingdom; and in pamphlets now publishing at intervals, by Mr. Whitehead, of the Stock Exchange, entitled The Key to Railway Investment, containing detailed information of one company in each. The terms "stock," "preference shares," "per cent.," "mortgage capital," "subscription bonds," &c., appear to us to carry with them their own explanation. We know of no work giving instruction on the subject, which is, undoubtedly, the province of the share and stockbroker.

"An Investor" (Liverpool-street).—We refer our correspondent to the directors' report of the Drake Walls Mine, laid before the annual general meeting yesterday week, and inserted in last week's Mining Journal. There can, we think, be no doubt as to the highly improved state of the mine, and although the accounts show a balance against the adventurers of over 1400*l.*, it must be borne in mind that this excess of expenditure has arisen from the erection of costly machinery, and the extra work executed to put the eastern part of the shaft in profitable working condition. On a careful analysis, it will be found that the regular operations of the mine produced a considerable profit; and as by the outlay a very large amount of ore ground has been laid open, with every prospect of replenishing the reserves as the tin is worked away, there is little doubt of an early commencement of regular dividends. The call was recommended in order to pay off the liabilities, and that the working of the mine might now start free of any impediments. During the year the ground opened in shafts, levels, and in stoping, amounted to 160 fathoms, at a cost of 533*l.* The tin ore raised reached 8940*l.*

"An Adventurer" (Tavistock).—We shall be glad to receive the information. Mining news is always acceptable.

TAVY CORSELOE, Sir: As a constant reader of your valuable Journal, and a shareholder in the Tavy Consols, I must acquaint you that your quotation as to the amount paid per share in that undertaking is incorrect. Instead of 6*½* paid, it should be 5*½* (for that is about the outlay to the original shareholders); and for months you have quoted the selling price at 1*½*. This, too, must be incorrect, for very few, if any, sales have taken place for some time. Now, from the late accounts I have seen of the great improvement in the prospects of this mine, the absence of further calls, and the possession of valuable machinery for the due working of the mine, I should think the shares are at least worth some 4*l.* or 5*l.* each in the market, if any were offering for sale; and, from every appearance, they will soon be worth a deal more.—**A SHAREHOLDER: April 15.**

CARADON COPPER MINES.—Sir: In the Notices to Correspondents, in last Saturday's Journal, I observe allusion is made by "A Subscriber" to the closing up of the affairs of the Caradon Copper Company. The delay has taken place in consequence of the great difficulty I have had in getting in the arrears of calls, as I think it would be very unfair to those who have paid up all their calls, to pay the liabilities out of the proceeds of the sale of the materials, and allow the defaulters to go free. Some of them have been brought to the County Court by the merchants; the remainder of them will be proceeded against at the next assizes, unless the calls are paid before. I shall after which I shall call a meeting of the shareholders, when a division will be made of the balance in hand. I can assure "A Subscriber," that I am equally as anxious as himself to have a final settlement.—**PETER CLYDE, Junr., Furner: Liskeard, April 15.**

"B." (Newland).—The meeting will be fully reported in our columns. We are at all times obliged for the transmission of information, and hope to hear from our correspondent frequently.

"J. D." (Southwark).—Although the discovery of lodestones under similar circumstances to those which attended the cutting of Grou's lode, in the 80 fms. level, at Tincroft Mine, is certainly not of common occurrence, they are occasionally cut in depth, where not the slightest indications have presented themselves at surface, arising sometimes from a deep top soil rendering shining difficult, or from the backs remaining undisturbed, and no stones rising about in the vicinity to give the idea of the existence of a lode. In the present instance no such lode was thought of. Chappell's lode has been worked for nearly a century; and to carry out the desire expressed by the directors to thoroughly explore the mine, a cross-cut was commenced almost at random, when, in 6 feet, a rich and productive lode was discovered, at least 7 feet wide, and worth 70*l.* per fathom. In the 142 fathom level a cross-cut is being driven to intersect every lode in the shaft; and whatever riches there may be in the mine, in addition to the present discoveries, there is little doubt but that the mine may be made to pay well before long. It was to escape this highly prosperous condition, there being, independently of Grou's lode, upwards of 90,000*l.* worth of ore in sight, and there is no fear but this will continue a dividend-paying mine for many years to come.

"A Reader."—We must decline publishing the statement—it would involve us in an endless and unsatisfactory dispute. Consult an attorney with respect to your claims on the parties.

Adventurer in Tin Mines" (Throgmorton-street).—Whatever evils may exist in the mode of ticketing for the purchase of copper ores in Cornwall and Swansea, as also for lead at Holywell, Aberystwith, and other places in Wales, they are fairness and purity itself, compared with the custom which prevails among the tin smelters in purchasing black tin from the mine agents. When notice is given to any particular holder of a parcel of black tin for sale, the seller is told to bring it in, nor can he get a bidding by the exhibition of a fair sample. He knows not what price he shall obtain until he has delivered the bulk, and is, consequently, completely in the smelter's power; and if, after an application to one house, he should try another, he probably gets a less price than he would have obtained at the first. On a parcel of tin being obtained, the half-dozen houses are communicated with, and it is then arranged how it shall be divided, and what prices shall be ticketed; and on a reference to our tin returns, such as they are, in such cases, the force of this so-called ticketing is apparent. It was to escape this mode of purchase by the smelters at their own prices, that the Tamar and Union Smelting Companies were established; and they have, undoubtedly, secured better prices to the mines with which the adventurers are connected than they before obtained, whilst a good return has been made on the extra capital employed.

"E. E. A." (Greenwich).—We published, in our last Journal, such information respecting the proposed railway bridge at Cologne as we deemed of public interest; but additional particulars can be obtained on application to the Prussian Consul, 106, Fenchurch-street.

"A. W." (Leith).—Refer to Mr. John Barclay's "Statistics of the Iron Trade," which appeared in the Mining Journal of the 23rd February last.

"F. M." (Redruth).—We are obliged for the information, and shall be glad to hear from our correspondent frequently.

WHEAL LANGFORD.—Mr. Molyneux, the secretary, informs us that a great number of shares have changed hands during the week at 3*l.* per share. The adventurers (he states) may congratulate themselves on the success of this undertaking; having, with an outlay of less than 100*l.*, raised a sum of the value of 1000*l.*, with every prospect of considerable quantities; having also a copper lode 6 feet big, saving work, only at the 10 fathom level.

"W. L." (Bristol).—The table of "Railway Traffic Returns" was omitted in the Mining Journal of the date mentioned, from an influx of pressing matter just before publication. The returns for the week ending the 31st March, and which should have appeared in our Journal on the 6th inst.—on the Great Western line were 14,178*l.* 0*½* 4*½*; and the Bristol and Exeter, 3898*l.* 18*½* 1*½*—together 18,077*l.*

"J. R." (Gateshead).—The Report of the Commissioners for Enquiring into the Application of Iron for Railway Purposes, was printed for the Commissioners of Railways, by W. Clowes and Sons, of Stamford-street, Blackfriars, to whom application had better be made.

"C. R."—The insertion of the communication is hardly requisite—the error not altering the sense of the letter, and being such as must occur in the necessarily hasty printing of a newspaper.

"F. W. B." (Bristol).—The subject has already been one of prominent comment in the Mining Journal, and will be again referred to at the proper time.

Several letters have been addressed to our office for Mr. Evan Hopkins, but that gentleman being in Cornwall—inspecting some mines in St. Austell, Redruth, Camborne, &c.—a delay must necessarily arise in their contents being attended to. On his return to London they will be handed to him.

"A Good Bat makes a Good Cat," and the letter of "A Shareholder" (Rhyader), on the Owen Erin Mine, shall appear next week; also the letter of Mr. D. Massey, "On Patent Law and Patent Right."

The letter respecting the Great Central Gas Consumers' Company, can only appear with the writer's name attached.

* * It is particularly requested that all communications may be addressed—

To THE EDITOR,

Mining Journal Office,

26, FLEET-STREET, LONDON.

And Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

THE MINING JOURNAL.

Railway and Commercial Gazette.

LONDON, APRIL 20, 1850.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

We, this week, record another of those fearful calamities with which our readers are unfortunately too often conversant—a colliery explosion, by which no less than six men, in the very prime of life, have met with a fearful and instantaneous death. The circumstances attending this explosion are the more distressing, as it is tolerably evident that the immolation of the six was caused by the reckless conduct of one of them, JOSEPH BRUNTON, in taking the top off his lamp; and that had the whole acted upon the rules of the colliery, and remained at the bottom of the shaft until the return of the viewer, who also fell a victim from inspecting the workings, the lives of all would have been saved. This colliery, which was situated at Marsden, Lancashire, and is the property of Messrs. SAGAR, SPENCER, and Co., appears to have been conducted with the greatest care and attention to the preservation of the lives of the men. From the evidence of an intelligent pitman, LAURENCE BROTHERTON, it appeared that it was the regular custom for one or two persons to examine the pit every morning, and that it was a rule for all the other men to remain at the shaft until the return of the viewers, which rule, it appeared, they often broke with impunity. On the morning in question, witness and STEER, an underlooker, examined the pit—each taking a separate direction. The former had gone about 300 yards without meeting with any foul air, when he heard a loud report as of an explosion, felt the shock, and soon after a second report; he then returned to the shaft, where he found only one man (the elder CHADWICK), who had properly waited the result of the inspection, and thus saved his life. The state of the air prevented them going into the levels for some time; but eventually the bodies were found in different situations, from 250 to 360 yards from the shaft, and J. BRUNTON's lamp was found close to the corpse, with the top off; while all the other men's lamps were secure. He stated that several men had been discharged for taking the tops off their lamps, and that the proprietors were now determined to discharge every man who infringed the regulations made for their own safety. If there is any real safety in these lamps, they ought to be kept locked, as it is well known that colliers are so reckless a race, even when their own lives are in peril, that they ought never to be trusted, where means of safety can be otherwise secured.

The past week has been an eventful era in the history of the railway share market, as marked by a greater depression in price of the principal stocks than we have ever yet had the undesirable duty to record. The Great Western shares, on Tuesday last, changed hands at 46, the lowest price ever before quoted, which shares in August, 1845, were sold at 22*½*; while the London and North-Western, Eastern Counties, South-Western, South-Eastern, and, in fact, shares in all the principal companies, have been in an equally depressed condition. A most extraordinary circumstance in connection with this description of security, is that even the Indian lines, with 5 per cent. guaranteed by the East India Company, can scarcely find purchasers at a trifle above *par*; while India bonds, paying but 3*½* per cent., are 4*½* premium, the interest on which is at any time liable to be reduced. With a population increasing at the rate of nearly 500,000 a year, or 1300 a day, provisions cheap, a rapid increase in the development of trade and commerce, and with every element which we can imagine necessary for the progressive increase of traffic and improvement of railway property in full operation, for months the fall has gone steadily on, nor is it possible for the most foresighted to foretell whether the lowest ebb has yet been reached or not. In this spirit-depressing, and, in fact, extraordinary state of railway affairs, neither directors or shareholders appear to have the slightest idea where to seek a remedy. The former, by allowing the most unreserved inspection of accounts, and other acts, may endeavour to inspire confidence, and the latter may afford it; but there appears an incubus riding on the shoulders of railway property as an investment, the nature of which is beyond the power of either party to discover.

In such a period of despondency, when forced sales of railway property are carrying broken hearts and absolute ruin into many a home, we are glad to observe that a pamphlet has just appeared from the pen of Mr. ADAMS, of the Fairfield Iron-Works, Bow, On Road Progress, and Practical Economy in Fixed Plant and Rolling Stock, in which the author sums up the causes of railway decline under two heads—bad legislation and bad mechanism. Mr. ADAMS is known as an ingenious mechanical inventor, manufacturer, and patentee, and as the author of more than one work besides the present on railway affairs; and the volume before us comes most opportunely at the moment for public consideration. The great expenses and losses under the first head are comprised in legal and parliamentary expenses, excessive cost of land and compensation, and the choice of injudicious and non-paying routes; forming together large sums, which, on all the present lines will, at no very distant day, have to be written off the accounts as profitless, or wasted capital, never to be retrieved.

Under the second head—bad mechanism—he shows how the use of disproportionately heavy engines and heavy carriages have crushed and broken up the permanent way, destroying the rails in one-fifth of the time they otherwise would have lasted, breaking down bridges, and causing endless and inordinate expense. He demonstrates that the only way to extricate railway property from the slough of despond into which it has fallen, is to give up the absurdity of heavy engines and carriages, and adopt light locomotives and light trains. This, he states as his conviction, can be easily effected, ensuring greater speed and safety, at one-third the previous cost, with a reduction of 50 per cent. in the working expenses; and that, by such a system, railways are capable of indefinite extension, carrying them not only within reach of every village in the kingdom, but even making them profitable in uninhabited districts, by the encouragement which will be thus afforded for more extended land cultivation. It is stated that, under the present system, the dead weight to be moved in proportion to the live, or paying weight, is 26 to 1—an enormity by itself sufficient to account for the great depreciation in railway profits.

Mr. ADAMS states, that under his proposed plan, it would not exceed 3*½* to 1; and that new double line railways can be formed with rolling stock complete, for 7000*l.* per mile. This view of the case is not mere theory, the advantages of light engines and trains have been substantially proved on the Eastern Counties, North Kent, Bristol and Exeter, and Cork and Brandon lines, and are supported by many of the most eminent and experienced engineers of the day. However disheartening may appear the obligation to break up the old stock when replaced by new (for it cannot be sold), and however difficult the obtaining of funds for constructing the new stock, it is everywhere apparent that, until some fundamental change takes place in the entire principle of railway propulsion, profits must continually decrease, dividends diminish, and the whole system gradually descend the stream to an ocean of bankruptcy and ruin.

The plan for re-constituting the ASTURIAN MINING COMPANY, which we have recently considered as the sole measure for saving the property of the shareholders, is for the present shelved. Mr. MOORE frankly confessed, at the meeting on Tuesday last (the report of which we give to-day), that he had failed in obtaining a sufficient support to justify the expectation that a new deed would be executed by anything like a competent majority of the shareholders, to give weight to an application to the Spanish Government. It was stated, that only 5000 shares out of 9500 had responded to the

call, which appears to be the test of adhesion to the project. In the opinion of Mr. MOORE, this failure involved the necessity of winding up the affairs, and selling the property of the company to the best advantage; and, for the purpose of obtaining funds to meet the debts until that could be satisfactorily effected, he pointed to the Court of Chancery as the most effective authority for enforcing the contributions. It was natural enough, that with such a statement before them, the shareholders attending the meeting should listen favourably to any one who held out other hopes. Mr. GILLAN came forward with promises, which presented ostensibly the means of escape from the difficulty which his adversary regarded as incapable of any solution but one.

These new proposals were received with the usual anxiety of despair which, in such cases, drives men to adopt anything which will defer the consideration of their worst fears. The re-constitution was postponed on the representation that, if the company were not re-constituted, Colonel BIRK would come forward to support the board; whilst Mr. GILLAN, as representing that proprietor, and, as we understood, a large number of the other proprietors, who had not paid the call, was installed in the direction to give effect to the views which received the tacit sanction of the meeting. We cannot admit that those views evince a correct knowledge of the materials upon which he has to work. Such as they are, a short time will suffice to test their intrinsic value. He proposes to re-establish the Asturian Mining Company under a new and respectable direction, cancelling the decree by the influence of our new ambassador, Lord HOWDEN, and certain other aids—a proceeding which Mr. MOORE most strenuously insisted was impracticable, having already ascertained the fact. We shall say nothing further upon this, save that it appears to us a re-constitution under a worse form; and, if Colonel BIRK objects to one mode, he surely will not approve another. Then, for the purpose of raising further capital, the 15*l.* shares are to be taxed with an additional call of 5*l.* a share, and the holders of forfeited shares are to contribute as much as will raise 15,000*l.*, so as to make up the whole sum to be collected, 40,000*l.* This is very easily calculated in a speech, or on paper; but difficult to effectuate.

If it be feasible to realise so much, we have wholly misunderstood the significant observations which have heretofore indicated a determination on the part of the shareholders to invest no further in this concern under any circumstances; and we may remark, that the present board seemed fully convinced of the reality of such a disinclination—having undertaken, at the September meeting, that, in forming the new company, they would make arrangements for paying back a sum equivalent to the amount which each shareholder should pay on the call then authorised.

As a temporary expedient to raise money, a loan is to be solicited by way of a contribution of 10*l.* a share; or, if that fail, upon mortgage, to the extent of 4000*l.*, if (?) it can be obtained.

Finally, the nabobs of Staffordshire are to be enlisted—not to carry on the works in connection with the present shareholders, but to purchase them at a price that will give some compensation for the money invested.

Such is the brief outline of the designs on which are to be constructed the measures for ameliorating the deplorable condition of the company. As they have been adopted by the meeting, they must have a fair trial, we suppose. Nevertheless, we cannot shut our eyes to a distant foreshadowing, which gives us some presentiment of the result. We sincerely hope that our misgivings are erroneous, although we resume involuntarily the original convictions which dictated our observations prior to the introduction of the rejected plans of the liquidators.

FOREIGN INTELLIGENCE.

AMERICA.—The Niagara has arrived, bringing twelve days' later intelligence from the United States and the British North American provinces.

The Hon. T. Butler King has laid before the Government his long looked-for Report on California and the Gold Regions generally of the Pacific Coast. It occupied nearly three hours reading, and in general gave a very glowing picture of untold and undreamed-of treasures, dwelling emphatically on the immense wealth anticipated from mining the quartz rocks in the mountains, vast bodies of which are said to be filled with veins and clefts of pure gold.

Another dreadful steam-boiler accident occurred between Buffalo and Niagara. The boiler of the Troy exploded, when nearly 20 persons were scalded to death or drowned, and about the same number were seriously wounded.

An important discovery is said to have been made in Oregon, which, in consequence of the great increase of commerce between that place and San Francisco, will have a material influence on trade. A new and fine entrance to the mouth of the Columbia river had been discovered by accident. The Southern Pass, as it is called, has hitherto been deemed impracticable; but two vessels, it seems, had passed through it into the open sea, and the least water found was about six fathoms. It was intended to be immediately surveyed.

The annual depreciation in the value of New England railroads is ascertained to be about 14 per cent. on their cost. This is found to be nearly the same on a new as on an old road. It includes bridges, fences, sleepers, rails, stations, engines, and carriages.

Operations on the Panama Railroad had been partially suspended, in consequence of the intense heat and fever amongst the labourers; but the work would be removed to another portion of the line, and native labour made available.

SOUTH AUSTRALIA.—We have received Adelaide papers to the 15th Dec., from which we extract the following items of news:—

WHEAL MARIA.—A meeting of adventurers was held at the Norfolk Arms, on the 5th December.—ROBERT FREW, Esq., in the chair.—A report from Capt. Lean was presented, which speaks most favourably of the workings; but mentions that they are partially suspended, from the influx of water; it was generally considered desirable that a whim should be at once provided to remove the difficulty. After some conversation, it was determined that one of the directors should be a resident at Mount Barker, for the purpose of ensuring correct and frequent information, and also for the convenience of country adventurers. The rules framed at the last meeting were considered, and, with some revisions, adopted. Messrs. W. B. Daves (resident), Joel Roberts, John Colton, and Daniel Fisher, were elected directors, in the room of Messrs. Le Vance, Santo, Hornbrook, and Harrod, resigned.

NEW COPPER MINE.—For some time there has been considerable excitement in the mining world respecting a new mine discovered about three years since in the Barossa Ranges, by a shepherd of Mr. Angus, and now pronounced by several mining captains to be of immense value. The secret was well kept, and when a survey and sale were applied for, Mr. Trewartha, the Government surveyor, failed to discover the indications. In fact, they are nearly all concealed by a shepherd's hut and a sheep-yard. The indications, we hear, are in the direct line of the Burra Burra and Reedy Creek. The property, which consists of two sections, has been valued at 14,000*l.* A company has been formed with 1400 shares of 10*l.* each, and nearly the whole of those offered for sale have been purchased. Messrs. Angus and Evans, and Mr. Barton, the discoverer, are the principal holders.—*South Australian, December 14.*

GOLD.—A gold-washing machine has just been completed by Mr. Mather, of Pirie-street, and is intended to be employed on the banks of the Torrens, or one of its tributaries. With this machine the operation is simple, precise, and likely to be effectual, for if the earth or pulverised mineral with which it is to be fed is at all auriferous, the smallest particle can scarcely fail to be separated and secured. The machine is portable, and all that is required in the way of fixing is, to place the frame in a horizontal position, to regulate the declivity of the moveable cloth surface upon which the washing and separation take place, and to introduce the proper supply of water, a small stream and a fall of about five feet being quite sufficient. The presence of gold has been ascertained in at least a dozen places, which have been reported to us, and the order for an elaborate machine like that so cleverly made by Mr. Mather, is a convincing proof that the precious metal will be industriously sought.—*Observer, Dec. 15.*

SILVER IN SPAIN.—Recent letters from Madrid state that the lately discovered lead mines in the provinces of Grenada and the Guadalajara are described as abounding in silver, of which 2000 *l.* weight are received monthly at the Mint in Madrid, and are immediately coined into dollars.

From St. Petersburg, we learn that the number of mines worked in Altai is 80, and in East Siberia 64.

NORTH BRITISH AUSTRALASIAN COMPANY.—This company is about to issue an abstract of the balance-sheet, made up to the 30th June last, which was lately received from the colony. By the latest accounts, the smelting operations at Kawaw were still conducted on a system so unsatisfactory, that the produce of the furnaces continued to be very poor. Mr. Elder, junr., who holds a third of the Bon-Accord, has just come home, and gives an account of the prospects of that mine by no means so sanguine as that apparently entertained by others in this country.

JAMAICA MINE, MOLLS, FLINTSHIRE.—On Tuesday, the 9th inst., this company presented their agent and brother-shareholder, Mr. W. B. Dyer, with his full life-size portrait, beautifully painted, in a superb gilt frame, "as a mark of gratitude for the very able, efficient, and profitable way in which he had conducted the said mine." About 16 of the shareholders and friends dined at the Black Lion Hotel on the occasion.

MERTHYR—TERMINATION OF THE STRIKE AT ABERDARE.—The whole of the colliers in the Aberdare Valley—or, rather, as many of them as the masters would take into employment—have signed the agreement, and returned to work.

HISTORY AND MANUFACTURE OF GUNPOWDER—No. II.

BY JOHN JOSEPH LAKE, OF THE ORDNANCE DEPARTMENT.

That Genghis Khan, and other great Asiatic conquerors, did not use gunpowder in their warlike enterprises, is no proof that it was not anciently employed in the east for that purpose. The awkward matchlock and rude and mis-shapen gun of the Hindoo, were little calculated to bring it into favour. The bow was long preferred in England—down even so late as the reign of Elizabeth—owing to its lightness and portability; for after all the improvements that had at that time been adopted by the introduction of the Spanish musket, the soldier was sadly encumbered, having to carry his unwieldy weapon, his rest (a staff about as high as a man's shoulder, with a fork at the top, to receive the barrel of the musket, and a ferrule at the bottom, to stick it into the ground, and without which he could not use the weapon, on account of its weight), his powder-flask, his touch-box, his leather bag of bullets, his burning match, and the sword he required to defend himself, after discharging his piece. The Turks preferred the bow still longer, and it is the most in favour with the Chinese at the present day. The unskilful manner in which they were used also added to the natural reluctance of mankind to receive new inventions. King James II. of Scotland was killed whilst superintending the working of a cannon at the siege of Berwick, in the year 1460; the powder having ignited from some remains of the previous charge, a plug was forced out of the gun, that laid the unfortunate monarch dead on the spot.

Before gunpowder was brought into general use in war, which happened in Europe about the commencement of the 14th century, the celebrated Greek fire was employed. Its composition is not now known, but it is thought that naphtha was one of the principal ingredients. It appears to have been a liquid, and, as a combustible compound, deserves a brief notice here. Gibbon is of opinion that it was first prepared by the Greeks of Constantinople, and that from them the Saracens acquired the secret of its manufacture. It was certainly employed at the sieges of that city in the 7th and 8th centuries, and the infidels employed it against the Crusaders. Beckman says that Callinicus, an architect of Heliopolis (Balbec), who flourished under the Emperor Constantine Pogonatus about A.D. 678, was the inventor of it. The art of preparing it appears to have travelled eastward, it having been met with in China in the 10th century. It is said to have produced a thick smoke and loud explosion, and that it burnt with a fierce and obstinate flame, which not only arose perpendicularly, but burnt with equal vehemence laterally and downwards; and instead of being extinguished, it was nourished, and burnt with greater energy in water—sand, urine, and vinegar, being the only agents that could damp it, whence it was justly named by the Greeks the liquid or maritime fire. It was thus equally serviceable by sea as by land, and was employed both in battles and sieges. Philip Augustus, King of France, brought a quantity of it from Acre, and employed it at the siege of Dieppe against the English. It was also used by the garrison of Ypres, when that city was attacked by the English in 1383, and had the effect of compelling them to raise the siege, and take shelter in Barburgh, where they were in turn besieged by the French, who discharged so much of this composition into the place, that a large portion of it was burnt. As already stated, the Saracens used it during the Crusades, and, according to La Croix, it was adopted into the service of some of the great conquerors of Hindostan. The method of using the Greek fire was as follows:—It was poured from the ramparts from large boilers, or launched in red-hot balls of stone and iron, or darted in arrows and javelins, twisted round with flax and tow, which had deeply imbibed the inflammable oil. Sometimes it was deposited in fire ships. It was also commonly blown through long tubes of copper, which were planted on the prow of a galley, and fancifully shaped into the mouths of savage monsters, that, when the liquor was discharged, seemed to vomit a stream of liquid and consuming fire. But the general introduction of gunpowder into warfare has entirely superseded it; and though a composition of a similar kind could readily be prepared if required, it would not suit the present age; and all the purposes for which it could be desired are completely answered by the war rocket and carcass, the latter of which is an iron shell, with several holes on different sides, and filled with resin, and other inflammable materials. It ignites when fired, and, entering buildings, like any other shot, or shell, it is sure to set them in a blaze.

In the manufacture of gunpowder, it is necessary that the ingredients should be of the greatest possible purity. The charcoal employed by Government is prepared from the wood of the alder, willow, or dogwood—that for the best sporting powder is made from black dry woods; but any sort of wood is used for common kinds of powder. Braddock, in his *Memoir on Gunpowder*, says that the grambush plant (*Cytisus cajan*) and the milkhedge (*Euphorbia tiraculi*) are suitable for the purpose, as is also the *Parkinsonia*. When the wood selected for the purpose is deprived of its bark, and cut into pieces of a convenient size, it is placed in cylinders or retorts of iron, and submitted to distillation, it being found that it answers the purpose better by being burnt out of contact with the air. It is also said to be more free from potash when prepared in this way, and, at the same time, the products of the distillation (pyroigneous acid, pyroacetic spirit and tar) which are lost by the old method, are preserved. The charcoal thus burnt is reduced to powder, and carefully examined, to see that there are no brands or imperfect pieces remaining amongst it. It is then sifted through lawn sieves, to purify it from any other light or foreign substances, and ground in a mill, until it is sufficiently pulverized to pass through what is called a bolting sieve, of brass wire, the object being to bring it, as near as possible, to the same sized particles as the sulphur and saltpetre are reduced to, which is necessary to produce an intimate mixture of the three ingredients. Powder prepared with charcoal made in iron cylinders is called cylinder powder, and that from pit charcoal is called pit powder.—*Portsmouth, April 15.*

VIADUCT OVER THE RIVER AYR.—Mr. W. McCandlish, resident engineer of the Glasgow and South-Western Railway, has furnished to the Royal Scottish Society of Arts a description of the Ballochmyle Viaduct, which carries the Cumnock extension of the Ayrshire Railway (which, on amalgamation, becomes part of the Glasgow and South-Western Railway) over the River Ayr, about a mile from the village of Mauchline. In order to attain the summit of the country near Cumnock, the line required to cross this river at an elevation of 170 feet above its bed. The river is about 100 feet wide, and runs between high rocky banks, which are used as abutments from which to spring the great arch. The viaduct consists of seven arches, the centre one being 180 ft. in span, and the three on either side of it being 50 feet in span each, and all semicircular in form. The arch-stones of the great arch are, on the outside, 5½ feet deep at the springing, and 1½ feet at the crown, but inside they are about a foot deeper. To give an idea of the magnitude of the viaduct, let it be compared with the Dean Bridge, near Edinburgh. If placed with the river bed on the same level as that of the Ayr, the roadway would stand 66 feet below that of the Ballochmyle Bridge, and the great arch of the latter would span two arches of the former. Again if Lord Melville's monument in St. Andrew's square were placed beneath the great arch, the head of the statue would not reach the crown of the arch. The stone of which the bridge is built is a close-grained red freestone, and was obtained from quarries opened on either side of the river, being conveyed to the bridge along service railways, which conducted to a gangway erected across the valley in connection with the centering. From this gangway they were removed to their position by means of travelling cranes stretching across the whole building. The centering was erected in four stages, each stage being proceeded with as the building advanced, and consisted of whole logs of memel, placed one above another, and properly connected at each stage with cross ties and diagonal braces, and well secured by bolts, &c. The quantity of timber used was about 50,000 cubic feet, and of iron about 6 tons. The work was commenced in November, 1845, the great arch was keyed on 8th April, 1847, and the last stone was laid on 14th March, 1849; the building being completed within three years and four months from its commencement. The number of men employed averaged about 400; and, to the credit of Messrs. Ross and Mitchell, the contractors, and Mr. Fulton, their superintendent, not a single serious accident occurred during the execution of the work. During its progress it was visited by vast numbers of people from all parts of the country, attracted by the beauty of the scenery and the grounds, as well as by the interest attached to the operations which were going forward. The quantity of stone used in the viaduct was about 580,000 cubic feet, and the total cost of the work was about 41,000.

The iron bridge intended to cross the Shannon at Athlone, for the railway to Galway, will be commenced in a few days by the eminent house of Fox and Henderson, of Birmingham. The materials will be landed at our quays, and conveyed by canal to Athlone. Over 1000 tons of iron will be used in this magnificent structure, which will be 700 feet in length. The Kish Bank Beacon will also be commenced in a few days, by Messrs. Fox and Henderson. This work is ordered by the Dublin Ballast Board, and to be placed on iron tubes, sunk in the sand by Dr. Pott's patent pneumatic process for sinking piles in sand, shingle, bog, &c. This process will be used at Athlone for supporting the railway bridge across the Shannon.—*Limerick Chronicle.*

ROTARY ENGINES AND CANAL HAULAGE.

[Specification of patent granted to Cornelius Bond, of Kenosha, in the county of Worcester, engineer, for certain improvements in rotary engines, to be worked by steam, or other means; and also in the construction of carriages, vessels, or other vehicles, to be worked, or propelled, by the said improvements in rotary engines, or other motive-power, and for the machinery to be connected therewith. Patent dated Oct., 1850.]

This invention may be thus described:—Within a steam case, which may be either an ellipse or a circle, is a circular cylinder, placed eccentrically therein, being greater than half its diameter, and keyed to a hollow revolving shaft. The circumferences of the steam case and the revolving cylinder touch at a given point. Two rectangular pistons are provided, sliding into and out of recesses, or chambers, in the cylinder; and two circular pistons, which, for distinction, are called plungers, are attached to the rectangular pistons. The plungers are acted upon by steam, or other elastic vapour or fluid, passing through the hollow shaft, which causes the ends of the rectangular pistons to come in contact with the interior surface of the steam case when steam is turned on, as hereinafter mentioned. The shaft passes through stuffing-boxes, a small pipe passing into the hollow part of the shaft, being connected by a stuffing-box, for the purpose of introducing steam, or other agent, to expand the pistons.

With regard to the improvements in carriages, vessels, &c., a trough, or opening, is first formed, the sides of which are raised high enough, when used on water, to prevent the same flowing over them into the boat. In this well, or opening, one or more pairs of driving-wheels are mounted in suitable bearings one above another, and which, when set in motion by the said rotary engine, or other motive-power, draw in a flexible rail, or bar, made of metal, or any suitable material, laid down in the canal, river, or water, or on the rail, or other road, on which the boat, or vehicle, is used, which rail is made fast at the extreme end, and may be of any form, as round, flat, square, or otherwise. The lower wheel revolves loosely on its shaft, and the upper wheel is keyed fast to its shaft, and revolves with it. The lower shaft can be drawn back through the side of the trough, or opening, through a stuffing-box, or it can be fixed under the bottom of the boat, or vehicle, if required, so as to leave space to take up, or let down, the flexible rail, or warp.

With regard to the manner of using the said rotary engine—1. When the same is used as a steam, or motive engine, the steam, or other gas, or fluid, is introduced into the hollow shaft, which, by acting on the plungers, causes the rectangular piston to come in contact with the steam case. Steam, or other gas, or fluid, being then introduced by the port, it acts on the pistons, and causes them to impart rotary motion to the hollow shaft. The engine is reversed by shifting the position of the slide valve.—2. When the engine is used to propel or exhaust air, gas, or fluids, power is applied to the revolving shaft, and the air, gas, or fluid, is allowed to enter at one of the ports, and to exhaust at the other, or by some other convenient arrangement of parts. And with regard to the manner of using the improvements in the construction of carriages, vessels, and other vehicles, and the machinery in connection therewith, I cause one or more flexible rails, chains, ropes, or warps to be laid down, and made fast at each end. The vessel, or vehicle (and, in the case of carriages, the vehicle must be mounted on wheels), is then brought over the said flexible rail, or warp, the sliding shaft is drawn back, the rail, or warp, is drawn up over the said shaft, which is then pushed back into its place; and the rail, or warp, is introduced between the driving-wheels, which are brought in contact, and kept down by spiral, or other springs, over the shafts at their bearings. Motive-power is then applied to the same, and the boat, or vehicle, moves forward, whether on a rail or other road, or on water.

Having now described the nature of the said improvements, and in what manner the same are to be performed, the patentee sets forth that he confines his claims to the particular arrangements set forth and described.

Patent-office and Designs Registry, 210, Strand, April, 1850.

IMPORTANT INFLUENCE OF RAILWAYS AND ELECTRIC TELEGRAPHS.—Great

as has of late years been the strides of knowledge, and anxious as the majority of the population are for the acquirement of useful information, the immense influence which the rapid transit obtained by the railway system, and the instantaneous spread of news over thousands of square miles is, we believe, but rarely considered in its true bearing. Dr. Lardner, in his lately published work on *Railway Economy*, which we noticed in the *Mining Journal* of 23d March last, particularly in his observations on the influence of improved means of transport, enlightens us considerably on this subject, by fixing the attention on the changes in the habits and character of the population which have been brought about by it. He impresses on our minds that nothing facilitates and develops commercial relations so effectually as cheap and rapid means of intercommunication. When, therefore, all nations shall be found more intimately connected with each other by these means, they will inevitably multiply their exchanges, general commerce will undergo great extension, mutual interest will awaken moral sympathies, and lead to political alliances. After having for ages approached each other only for war, inhabitants of different countries will henceforward visit each other for purposes of amity and intelligence, and old antipathies, national and political, which have so long divided and ruined neighbouring states, will speedily vanish. As a striking illustration of the rapid transmission of intelligence by the combination of the various expedients which science has supplied, we take the career of a single morning newspaper. The proprietors are able to maintain agents for the transmission of intelligence from every principal city in Europe; these correspondents transmit to the centre of intelligence in London regular dispatches by the mails, and occasionally by courier; these are forwarded from Dover to London by special messenger, or, if important, abbreviated and sent by electric telegraph, and within two hours of its reception the news is in the hands of the London public. Few of the numerous readers of newspapers have the least idea of the immense commercial, social, and intellectual powers wielded, and benefits conferred by these daily publications, a large portion of which influence is to be ascribed to the cheapness, promptitude, and rapidity with which they are transmitted to all parts of the country. It is commonly estimated that the average number of copies of the most widely-circulating journal in London amounts at present to 40,000. Each of these 40,000 copies passes at least under the eyes of 10 persons—thus giving 400,000 daily readers, of one organ of information and intelligence. These 400,000 readers, long before the globe makes one revolution on its axis, become 400,000 talkers, and have vastly more than 400,000 hearers—thus spreading more widely by the ear the information, arguments, and opinions which they have received through the eye. It certainly is not overstating the result, if it is assumed that this influence of a single journal, directly and indirectly reaches daily a million of persons; and how immense must be that exercised by the hundreds of clever periodicals with which the metropolis and the provinces teem only in the course of a single week.

PREVENTION OF EXPLOSIONS IN STEAM-BOILERS.—In the *Journal of the Franklin Institute*, for February, there is a suggestion by Mr. A. C. Jones, C.E., for preventing explosions in steam-boilers. Having had long experience with the engines of the Mississippi boats, the writer is convinced that the majority of accidents happen through gross neglect, or ignorance; he, therefore, repudiates all nostrums, such as fusible alloys, floats, balance-valves, &c., and merely lays down a few rules to be carefully followed, which, during 25 years' practice, have prevented any accident to the engines under his charge. He advises—1. To carry the water as high as the boiler will allow, without working over into the cylinder.—2. Never increase the pressure of steam to overcome the loss of power by leaks in the joints, disarrangement of the valve gear, &c.—3. If, by any unforeseen cause, the water gets too low in the boiler, avoid pumping in water, or raising the safety-valve suddenly, or by any other means disturbing the surface of the water, kept smooth by pressure; but damp the fire at once, and allow the boilers to cool down below their working temperature; if time is an object, now throw in a very small quantity of water, and note its effect on the safety-valve; if sufficient time has elapsed, the lever will get heavier; the pump may then be set to work, and a slow fire started, limiting the supply of water so as not to cool the boiler too soon. It is well known, by an experiment with an iron ladle heated to redness, by throwing in water, it is not converted into steam until the iron has cooled down to 212°, when it instantly flashes into steam. If a boiler is in this condition, and sufficient water is suddenly thrown in, an explosion is inevitable.

WORKING RAILWAYS IN BELGIUM BY GOVERNMENT.—The official return of the State, which, in Belgium, constructed and works the railways, has just been published, of the financial state of these undertakings up to the 1st Jan., 1849. These returns show a sad falling off in the profits as interest on the capital expended; and, notwithstanding the numerous advantages which have attended the formation of railways in Belgium, they have ever been a heavy burden on her treasury, and show a tendency, at no distant day, to be a dead weight on her resources. In 1847, the gross receipts were 13,648,093 fr.; working charges, 9,318,860 fr.; leaving a profit of 5,030,932 fr., giving an interest of 3 fr. 39 cents per cent. on a capital of 100,181,878 fr.; while, on the 1st of January, 1849, the gross receipts were 12,107,744 fr., and the working charges 8,766,241 fr.; leaving a net profit of 3,341,502 fr., or 2 fr. 8 cents per cent. on a capital of 100,570,268 fr. This is a specimen of the result of working by Government, in a country where, from its almost perfect level, with plenty of cheap coal and iron, railways only cost about 12,182 fr. per mile. Our English lines, with heavy outlay and extravagant management, have paid somewhat better than this.

Original Correspondence.

VOLTAIC COPPER ASSAY.

SIR,—This was intended for last week's paper (but not ready in time), in the hope that Capt. Prince, and, perhaps, others, might co-operate in carrying forward the experiments, or suggest inconveniences, defects, or improvements. The object in view is, to get out all the copper free from other metal, in one flexible sheet, separable from the copper plate, for washing, and weighing entire and alone.

The following is my present apparatus:—

The plates lie flat, instead of hanging upright—the containing cell being a glass tumbler, flat bottom within, and 3 in. diameter. (Note 1.)

The inner cell, a glass cylinder, open at both ends, 2½ in. diameter; the bottom tied over with bladder, which divides the two plates.

The copper plate lies on the bottom of the containing cell (note 2), and is varnished on the back and edge (note 3), except one corner, which is bent a little down, to gather up the last particles from the solution; to favour which, the apparatus stands slightly inclined to that side—the higher corner being narrowed and turned up to join the conducting wire.

The positive plate is sheet-iron (note 4); lies parallel with the copper, and about one-eighth inch above the dividing bladder; both plates being kept clear of the bladder by triangles of glass rod, rather more than one-eighth inch thick. (Note 5.)

THE SOLUTION OF COPPER.—Of metal, 50 grains may be a convenient quantity (or of ore, or slag, as much as may contain 50 grains), which may be dissolved in ½ oz. of nitric acid (note 6), with ½ oz. of water, then mixed with about 80 grains of sulphuric acid (note 7), and evaporated to dryness. It may then be dissolved in 2 ozs. of water, containing about 70 grs. of sulphate of soda (note 8); or, if further purification be desired, as in solutions of ore, the nitric solution may be precipitated warm, with carbonate of ammonia, and the precipitated carbonate dissolved in 100 grs. of sulphuric acid, diluted with 2 ozs. of water, and the excess neutralised with soda, after adding the copper retained in solution by the ammonia, which must be acidulated, then precipitated with sulphuretted hydrogen, and the sulphuret dissolved in nitric acid, which will be too little to require expulsion.

It may be better for further dilution; and for being left a little acid (see note 5, b, c); this is subject for further experiment.

LIQUOR FOR THE IRON PLATE.—For this, Mr. Smee recommends solution of sulphate of magnesia, which may be acidulated or not, as the course of experiment shall decide. It should be lighter in specific gravity than the copper solution, that it may have no mechanical tendency to filter down through the bladder, and displace or mix with it.

CHARGING.—First lay in the plates, and connect them (note 9); then cover the iron plate with its solution (not deep enough to press down the bladder into contact with the copper), and then pour in the copper solution pretty quickly down the inside of the cell, so as not to fall upon the face of the copper, but rise quickly round, and spread over it, till it reaches the bladder (note 10), when the whole may be steadily poured in, and the iron cell filled to the same level.

It may now be left to work, regulating the temperature according to note 5, b, c, until the copper is all deposited in a flexible sheet, just turning over the lower corner, and which may be detached entire with the help of a thin knife-edge, and washed in warm boiled water for weighing.

The following explanatory notes are chiefly drawn from Smee's *Electro-Metallurgy* and Walker's *Electrotype*:—

NOTES.

1. The outer cell, containing per inch deep 4 fluid ounces; the inner, nearly 3 fluid ounces, or above two-thirds of the outer.
2. Because the strongest part of the solution tends to sink as the decomposition proceeds.
3. To prevent the deposited sheet overlapping and grasping it, so as to be difficult to separate entire.
4. To precipitate copper only.
5. a. To keep the bladder level, and prevent its touching the plates, which would make it liable to take on a small portion of the deposited copper; and plaster of Paris, or porous earthenware, still more. Captain Prince may recollect Mr. Fox's artificial vein of copper, thus carried through a clay division.—b. To keep the plates at the best distance, which can be regulated by the thickness of the rod; as, if the electric force is too great for the strength of the solution (or if the plates are too near), the deposit is apt to be in loose powder; whilst, on the contrary, if they are too distant (or the electric force is too weak) for the strength of the solution, the deposit forms very slowly, in hard crystals.—c. The electric force and strength of solution may also be apportioned to each other, by heat, by acid, or by concentration, or weakening of the solution; nor is great nicety required in this adjustment, the flexible sheet deposition admitting considerable latitude.
6. To free the solution from tin, antimony, &c.
7. To drive off the nitric acid, because iron decomposes sulphate of copper better than nitrate; also, to free the solution from lead and all other substances thus rendered insoluble. Muriatic acid is objected to by Mr. Smee, as interfering with the perfect deposition of the copper sheet.
8. Found by Messrs. Elkington to help render the precipitated metal soft and ductile.
9. By twisting together the ends of the conducting wire; or pressing them together by a thumb-screw, or elastic copper band; or binding together with finer copper wire. I prefer the band.
10. This precaution is necessary for the easy separation of the deposited sheet from the plate. A thin coat of copper forms rapidly, on the closing of the circuit, by the contact of the liquids; and encloses (if the copper plate was quite dry and slightly tarnished) a film of the electric force and strength of solution may also be apportioned to each other, by heat, by acid, or by concentration, or weakening of the solution; nor is great nicety required in this adjustment, the flexible sheet deposition admitting considerable latitude. But if the copper plate was wetted before closing the circuit, or even recently brightened by acid, the air film may be expelled, and the deposited copper adhere to the plate.

In reply to Capt. Prince's question, respecting the particles of iron and carbon, the most practical means of avoiding them I have devised, in the ordinary wet assay, is the use of the finest nail rod for precipitation (laying in a little store of it when I find a sample which dissolves almost perfectly); but I cannot claim, either with iron or zinc, the degree of nicety given in his experiments—i. e., 1-16th per cent., or even ¼th, with constancy and certainty.

To the queries of "Germanicus," I can only reply that, as we have not been able to procure, or hear of, any of the very durable Norway copper mentioned by him, I have no means of saying, practically, what influence nickel may have had in the case. Such Norway sheet as we have obtained does not show nickel in colour—i. e., is not distinctly paler than our own, in which the minute proportions of nickel found in my analyses (not 1-20th grain per cent.) can hardly be supposed to affect the durability. The Norway offering no peculiarity, either in appearance or sea wear, I have not yet had occasion to analyse it.

With respect to the extraction of the nickel alloy paying on the large scale, the cost will, of course, be affected by local circumstances. So far as I have the means of forming an opinion, it would be favourable; but cannot be regarded as a practical one.

Plymouth, April 16.

J. PRIDEAUX.

COPPER SHEATHING.

SIR,—Having noticed in your last *Mining Journal* a communication from "Germanicus," on the subject of the alloy of nickel with Norwegian copper ores, I think I may give a little information on the subject. I believe that the best mode of disposing of the nickel contained in these ores would be to make a portion of the copper produced from them as rich in nickel as possible. This might be done by not slagging off the iron too close in the first processes of smelting; but allow a small portion—say, 1 or 2 per cent.—to be carried on to the refinery furnace, when, if that process were carried a little further than is at present the case, the refinery slag would be found to contain nearly the whole of the nickel originally in the ores. This slag, when accumulated in sufficient quantities, if fused with a sufficiency of carbon, metallic iron, and limestone, would produce a copper rich in nickel, which, however, should undergo the refinery process to slag off any portion of iron that may be present; but care must be taken to stop the oxidation at that point, at which all the iron is separated, or a portion of the nickel will be carried off in the slag. If, however, this should be the case, this slag might be put back into one of the previous stages of the smelting, when the nickel would be again reduced by the iron contained in the ores.

I should say that copper so produced would be worth 5½ per ton more for every 1 per cent. of nickel contained in it. Being a considerable consumer of copper and nickel myself, I should have no objection to buy at that rate, providing it be made of good quality, and free from other impurities. The extraction of the nickel in a pure state, with so large a percentage of copper as mentioned by "Germanicus," would not pay the expenses incurred in the process; therefore I consider the producing of a good copper, rich in nickel, to be the most advantageous.

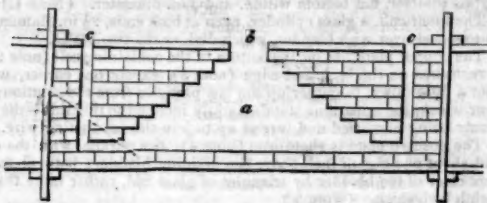
Birmingham, April 16.

A. MERRY.

MANUFACTURE OF IRON.

SIR,—As I have taken up so much of your valuable space with my lubrications on the properties of iron, I think it but fair to send a few practical results for the information of such of your readers as feel interested in the subject. My notion is, that pure iron and carbon do not combine chemically, but that such combination is effected through the agency of

oxygen; that this is the case with white pig or cast-iron; that the application of free or uncombined carbon, at a high heat, by withdrawing the oxygen, converts white into grey metal; and that the iron in the latter is in the pure metallic state, having carbon in the form of graphite, minutely diffused through it. It is now some years since I contrived a very simple mode of treating fused metal upon a large scale, of which I send a brief outline. This may be used either to improve the quality of foundry pig-iron, to ensure strong castings, at the same time uniformity of temperature and quality throughout a great bulk of metal, or as a preliminary treatment for some new preparations of iron. I have recommended this plan to several parties; it has been attended with some extraordinary results and proved most successful.



This rough sketch must be supposed to represent a vertical section of what I term the cementing kiln—a hollow pyramid of fire-brick work, having strong metal plates at top and bottom, well bolted together. The hollow space, *a*, to be filled with large pieces of solid carbonaceous matter—as compressed coke or anthracite coal, ignited, and a blast applied at the opening, *b*, to be driven downward, and allowed to pass off through a series of small flues at the sides and corners, *c, c*. When the kiln and fuel are sufficiently heated, the metal, either from a blast-furnace or a cupola, is ready for running off, the blast is to be stopped, the metal run in and left at rest the requisite time, and then tapped off.

April 16.

T. H. LEIGHTON.

IRON FOR RAILWAY PURPOSES.

SIR.—I am unwilling to trespass upon your columns, but should feel obliged if you will allow me to offer a few remarks upon a letter, signed "A Civil Engineer," which appeared in the *Mining Journal* of the 6th inst., as the writer of that letter has, no doubt quite unintentionally, misrepresented the few observations which fell from me at the Institution of Civil Engineers. In common with "A Civil Engineer," I listened with great attention and interest to all that fell from Mr. Thornycroft, and was glad of an opportunity to congratulate him upon the applause which his ability, experience, and researches, so justly entitled him to receive.

Your correspondent stated that I said "I fully agreed with a remark in the paper—that for making good iron a great deal depended upon the purity of the materials from which it was made." Now, I understood the argument used by Mr. Thornycroft in his paper to be, that the material had, compared with the manufacture, little to do with the quality. I consequently stated that I begged to differ from him on that point, for it was my humble opinion that it was very important the ore and coal should be of the best quality to secure a superior iron; that the Low Moor Company possessed superior ore and coal, and prided themselves upon manufacturing axles of the best description; and that since they had been makers of railway axles they had had but one case of breakage brought before them, and upon investigation it was found, and admitted by the makers of the wheels, that the axle had been ordered to an incorrect dimension, cut in half and welded at the centre, and that it was in consequence of that weld it broke. I likewise stated that the Low Moor Company agreed with Mr. Thornycroft upon the shape of his axles, but that a great difference of opinion existed upon that point amongst engineers, that I had had a conversation with "an" engineer upon the North-Western Railway (not, as stated by a "Civil Engineer," with "the locomotive engineer," for I have not the pleasure to know that gentleman), who was of opinion that an axle should be lessened in thickness in the centre; and that the argument I had most frequently heard used for making the diameter smaller in the centre was, that in turning curves it gave the axle an opportunity of bending, whereas if axles were parallel in thickness they were rigid, and the neck of the journal would receive the strain.

Will you allow me, in conclusion, to observe, that I was struck with the delicacy with which Mr. Thornycroft abstained from mentioning, not only our own, but any other company, by name: and that I believe the words "Low Moor" were only upon his lips once, and that was when, with the utmost good humour, he exhibited a piece of iron of his own make, which he stated was equal in quality even to the "Low Moor;" and that if he referred to the Low Moor iron, by name or otherwise, in his able paper, it must entirely escaped my notice.

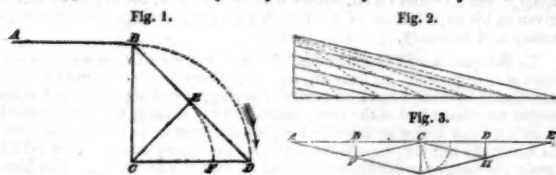
JOSEPH FREEMAN.

London Agent to the Low Moor Iron Company.

Artillery place, Finsbury-square, April 12.

TUBULAR BRIDGES.

SIR.—Having gained much valuable information through reading the scientific correspondence with which your *Journal* abounds, it would be ungenerous in me were I to withhold, when opportunity offers, giving your enlightened and liberal contributors in return such information as I may have acquired on a subject which, though perhaps well understood by some, appears not to be fully comprehended by others of your scientific



correspondents. In fig. 1, let *BC* be equal to *CD*; the former at right angles, and the latter parallel to *AB*, connected by a diagonal, *BD*; and let it be required to know the relation between a given force applied parallel to *BC*, at *D*, and the effect produced on *AB* and *BD*. Let *C* be a fixed point, or centre, around which the figure may revolve, it is evident that, as *B* would move at the same rate as *D*, the effect produced on *AB* will exactly correspond with the force applied at *D*. If *BC* were greater than *CD*, the strain produced on *AB* would be less than the force applied on *D*, and vice versa. To determine the effect produced on the diagonal, *BD*, draw a line, *CE*, at right angles to *BD*, to the centre, *C*; then as *CD* is to *CE*, so will be the strain on *BD* to the force applied at *D*, which, perhaps, will be more apparent by supposing that *E* were removed to *F* on *CD*. When it is desired to make the strain on the diagonal, or suspension bar, to have a definite relation to the weight at the foot (*D*), *CE* (not *CB*) must be equal to that proportion; thus if the "leverage," or strain, on the suspension bar is to be 4 to 1 of the weight it has to sustain, the nearest point (*E*) of the suspension bar to the angle (*C*), where the beam (*CD*) rests on the pier (*CB*), must be equal to one-fourth of the length of the beam. If the strain should be 3 to 1, the nearest point (*E*) on the suspension bar will be one-third of the length of the beam; or, if 2 to 1, one-half, and so on, for any other proportion.

In fig. 2, the prominent lines exhibit the arrangement of the suspending bars, as proposed by your correspondent; but a little consideration will, I think, enable him to see that "economy" and "inflexibility" would be better secured by adopting the arrangement exhibited by the dotted lines; for, on investigation, it will be found that, although the suspending bars are longer, they will be considerably lighter, as the "leverage," or strain, is diminished in a greater ratio than their length is increased; and, as regards the saddle bars, their weight would be reduced exactly one-half by the latter plan; and, with respect to flexibility, it will readily be seen that, on your correspondent's plan, the bridge would deflect by applying a weight at any point, as it would do so by simply elevating the corresponding point on the opposite side of the pier; whereas, on the plan of the dotted lines, no point in the side span could be depressed without raising nearly the whole of the centre span, nor the centre without elevating the side spans, and which may easily be prevented, and, indeed, the bridge rendered absolutely inflexible with but very little more expense than what it would cost for a bridge on the plan so strongly recommended by your correspondent, Mr. T. Motley, who, I hope, will not consider that what has been advanced has been written in any spirit of antagonism, but solely with a view of correcting what was considered erroneous. I would, likewise, before concluding, direct his attention to the following remarks, on his plan of under

suspension bridges, published in your *Journal* of Feb. 24th, 1849, and is as exhibited at fig. 3, with a leverage of 4 to 1, as proposed.

Now, if a weight of (say) one be applied at *C*, it will, as represented, produce a strain of two on *A, E, G*, and *G, H, B*; but the centre is not the weakest point of the bridge; for, by removing the weight to *B* or *D*, the strain on a portion of the suspension bars would be 50 per cent. more than when the weight was at *C*. From *A* to *F* the strain will be three for every one on *B*; or, if a load of one was placed at each of the points, *B, C*, and *D*, the strain on the suspension bars would be as follows, and their strength should be regulated accordingly:—From *A* to *F*, and from *H* to *E*, the strain would be six; from *F* to *G*, and on to *H*, four; and on the two short bars, *F, C*, and *C, H*, two; the strain from *A* to *F*, and *H* to *E*, would be the same if all the weight was at *C*; and precisely the same effect on the chains would be produced if a weight of four was distributed uniformly over the whole length of the bridge as if a weight of three was laid on *B, C*, and *D*. I hope, Sir, the importance of this subject will be a sufficient excuse for my trespassing so much on your valuable space.

April 16.

AN ENGINEER OF THE NEXT GENERATION.

THE SHOWER BATH.

Fig. 1.

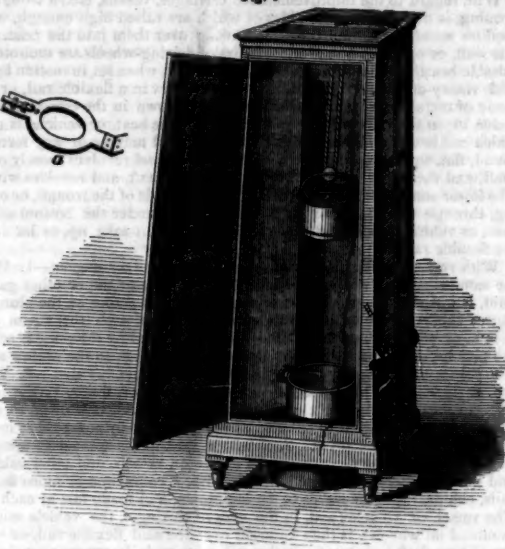


Fig. 2.

Fig. 3.



SIR.—It was in consequence of the ordinary shower bath having proved fatal to a gentleman at Brighton, from the violence of the shock, that I was led to my invention. A second edition of a "Descriptive Account of a New Shower Bath, constructed on a Principle not hitherto applied to that Machine," was published in 1831; and as I am anxious that the public should benefit by the invention, as well as individuals, I venture to submit that "descriptive account" to you.

With the solitary exception of one guinea, already referred to, I have never received one farthing for my inventions from first to last, effected at the cost of many hundreds of pounds, and the unwearied toil of many years; while unprincipled individuals have unscrupulously dared to invade my rights, and tried to deprive me of the simple merit of my inventions. Thousands of "nursery shower baths" have been, and are being, made and sold, and though originating with me, are not recognised; and Mr. Hazard even took out a patent for the same principle. However, my shower bath has ramified far and wide; the public has been benefitted by the invention, and that is my only reward.

The principle is easily understood, and is merely this—the suspension of a column of water by the resilience or resistance of the atmosphere, and its partial or entire descent by the admission of atmospheric pressure, momentary or continued. The figures 2 and 3 show the form used in the "hand shower bath," and the main figure is copied from that from which the shower bath at Bishopsthorpe was made, and as used by the late Archbishop of York. If the incense of praise, and the hosannahs of universal approbation wherever it has been used, can be gratifying, I have enjoyed my full share, and so far have nothing to complain of; but age and years have sobered and softened down the pride and pleasure I once felt in these tributary offerings.

The figure, No. 1, exhibits the frame-work, including the mechanism of the shower bath. At the bottom of the case is a vessel, which is moveable, and supplied with water at the required temperature. Into this cistern the bath is lowered by a winch, and the lever valve being raised, the water enters and fills the vase; the valve, which falls by its own weight, is now shut, and the vessel is then raised to the required altitude by means of the winch, which, being furnished with a recoil clamp, will prevent its descent until it is required. A string attached to the lever valve in the hand of the individual regulates the descent of the shower, which may be checked at any moment, and these intervals allow the application of the flesh-brush. It is obvious that water, either salt or fresh, may be employed, and these, too, at any required temperature. There is a perforated trap door below, to allow the water to run off into a receiver beneath. When the vase is supplied, the vessel which contained the water for this purpose is removed, and a circular plate of cork introduced in its stead. It is needless to say, that the bottom of the shower bath is perforated, like the rose of a watering pot; *a*, secures the bath in its proper position, should any doubt arise of the cord being of insufficient strength.

When I introduced the shower bath in 1828, a physician thus writes me—"I congratulate you on the success of your very ingenious invention, and shall be most happy in giving it every recommendation in my power." Another says—"Mr. D. has made your shower bath fashionable here; nothing can be better." Another—"You have conferred a lasting obligation on my family by your excellent shower bath. I got one made for myself, another for Mr. F.W.; Dr. H., and others, have copied from these." I might fill a column with extracts.

Portland-place, Hull, April 16.

THE DRY ROT QUESTION.

SIR.—I repel, with honest scorn and indignation, the foul innuendo with which your correspondent introduces his heartless attack; and though my version of the injunction *de mortuis nil nisi bonum*, is *de mortuis nil nisi rectum*, it was sufficiently clear that the reference was made to a controversy I had with Mr. Kyan himself, some years ago, when the late Dr. Birkbeck came to his rescue. I renewed the subject just as I had done others. I never once adverted to Payne's process, from beginning to end. I leave all the benefit to be derived from calling in question the veracity of the Duke of Portland, Earl Manners, Sir John Barrow, Dr. Moore, and others, to be enjoyed by your correspondent.

Sir H. Davy abandoned the process from a conviction of its danger; and as Dr. Faraday's opinion of its safety, all I shall say of the rest he preferred is, that he is a bolder man than I pretend to be, for I should as soon think of wearing a plague-spot garment, and I am not, by any means, a timid man! Even on the supposition that the assumption touching the albumen of the sap being the cause of dry rot was correct, I said, *causa*

argumenti, that I had found chloride of copper to coagulate it; perhaps it might have been better expressed parenthetically; but most assuredly, per-verse ingenuity alone could torture it into a self-contradiction.

It will be remembered that several of the *Giraffes*, originally introduced into the Regent's-park, perished. These noble creatures were incessantly licking the Kyanised wood of their enclosure; to that circumstance, at the time, I ascribed their deaths, and expressed this opinion in a London newspaper, which remained without a negative. In a word, the shattered and ruined constitution of the persons engaged in the process is a too painful emblem of the ruinous condition of the "Patent Anti-Dry Rot Company," judging from the price of shares! As to my conductor, I may merely say,

"Ponderibus librata sula."

It may be my misfortune that I cannot accept your correspondent, either as an oracle on the subject of electricity or the diamond, but that unfortunate rejection affords no license for personal attack.

In reference to conductors, and any future remarks of your correspondent, I shall be for ever silent. I have been your humble correspondent for nearly ten years, and as the end and aim of, I hope and trust, an honourable and useful life has been EXCLUSIVELY THE PUBLIC GOOD, and not self-gratification, I shall immediately retire from the arena of your *Journal*, when personal hostilities become the order of the day. J. MURRAY.

Portland-place, Hull, April 17.

P.S.—Next week I shall gladly refer to the query of Mr. Sims, tendered to me through you, but I am at this moment much pressed for time.

[We feel satisfied our correspondent intended no personal hostility, much less infliction of pain, on the feelings of Dr. Murray, any more than we did in publishing his communication. In such discussions, although committed to paper, sentences will creep in, which a writer often, on consideration, would wish had been modified; and, in the accumulation of our Original Correspondence, we cannot always detect that latent pungency in a paragraph, which may prove unsatisfactory to others. While we regret any ground for dissatisfaction, we must say, we cannot see the remarks in so strong a light as Dr. Murray appears to view them.]

THE LIGHTNING CONDUCTOR.

SIR.—The continued personal hostility waged against me on the part of your correspondent is patent to all your readers; even a mere inadvertency is pounced upon with a voracious avidity, and when an opinion adverse to mine is expressed, he forthwith rushes to the aid of his author, as if the opportunity was too good to be lost. Principles are held to be subordinate, in order to nibble at details. As to any concession extorted by the force of truth, all that I shall say is—

"Timeo Danaos, et Dona ferentes."

In reference to the voltaic principle attached to the conductor as conservative of freedom from oxidation, it is reluctantly admitted that it is effective when the air is humid; and it is equally evident its power may be made continuous with the aid of a deliquescent salt. Will your capacious correspondent condescend to give us a better plan? Before ever the name of Sir S. Harris was known to science, I had been in the habit of showing the preference of electricity for the nearest pathway by lines of phosphorus traced on paper, zig-zag and direct, curved or rectilinear, affording simple and beautiful illustrations, from the metallic lustre being defaced in the line of discharge; and long before my time the fact had been proved by other more complicated means.

Once for all—and the question, as far as I am concerned, is at an end—let it be remembered that my lightning conductor is not a thing of imagination, or vision of the mind, but a problem worked out and demonstrated—not a fanciful theory, but a fact carried out into successful operation. Surely TWENTY YEARS is a sufficient test of excellence, and FIFTY a tolerable numerical array!—J. MURRAY: Portland-place, Hull, April 18.

LIGHTHOUSE ON THE GODWIN SANDS.

SIR.—I proposed an entirely new and unquestionable plan, whereon to rear a beacon, or permanent lighthouse, on these treacherous sands, where many a gallant ship hath gone down. This principle was submitted to the Lords of the Admiralty. By them I was referred to the Elder Brethren of the Trinity House, who, in their turn, informed me they had no intention whatever to erect anything of the kind! Hence there is no hope whatever from these quarters; so shipwreck, in all its appalling horrors, is in their wisdom, but lightly esteemed—alas! alas! It was in the exercise of a sacred duty that I submitted my plans, and the rejoinder was a frigid and formal recognition.—J. MURRAY: Portland-place, Hull, April 16.

GODWIN AND TONGUE SANDS.

SIR.—I feel obliged and flattered by the remarks of your correspondent, "Observer," in the last number of your valuable *Journal*, on the erection of a lighthouse, or houses, on the Channel sands, with respect to the necessity of which his observations are but the echo of thousands of the British community. Past experience should have taught the proper authorities that the apology for beacons, as at present employed on these dangerous sands, are both expensive to the country and totally inefficient for the purposes intended; yet each succeeding year records a loss of life and property almost too fearful to contemplate; while no steps are taken to remedy the evils, notwithstanding the continual recurrence of these great national calamities.

The thorough efficiency of the plan I proposed, some time since, in the *Mining Journal*, for studding these sands with lighthouses, has never been disputed, but, on the other hand, approved of by all who have inspected them; and Mr. James Walker, C.E., in some observations made by him, at the Institution of Civil Engineers, at the time the plans were exhibited to the public, and in reference thereto, remarked that, if a permanent lighthouse is ever to be erected on these dangerous places, the sand must be pierced through, and the foundation for the lighthouse be laid in the solid formation below. Mr. Rendell, and other engineers, also spoke highly of the project, and this in the presence of some of the Trinity House authorities. Since that period, two large vessels have been lost, 400 lives sacrificed, and an amount of property destroyed, more than would have covered the expense of erecting a permanent lighthouse on each end of the Tongue Sand, with proper screaming apparatus, which might be heard at two or three miles distance, in every direction, to warn the mariner of his approximate danger.

With respect to your correspondent's remarks, whether a company could not be formed for the erection of lighthouses on these sands, I have no doubt such a company could be formed for this humane purpose, provided the authorities would grant the privilege of taking tolls from shipping to pay them an interest on their outlay, of which I fear there is little hope, as all the lighthouses which were originally built and supported by private individuals have been purchased up, for the purpose of placing all under the control of the Trinity House, and making the system uniform. I intend shortly to get up two petitions, to lay on the table at Lloyd's for the signature of all interested, for presentation to the House of Commons and the Brethren of the Trinity House; and, in the meantime, I sincerely hope some independent Member of the House of Commons will move for returns of the number of vessels and amount of life and property which has been destroyed and swallowed up by this insatiable Moloch in the last quarter of a century.—G. SHEPHERD, C.E.: April 17.

LIGHTNING CONDUCTORS.

SIR.—In your *Journal* of the 6th instant, Dr. Murray gave a very good description of his plan of fitting lightning conductors, with an engraving of St. Paul's Church, Huddersfield, and the expense of fitting that church with his conductor, which is made of copper pipes, in lengths of 10 feet each, screwed together, measuring 170 ft. in length, and $\frac{1}{2}$ in. inside, and $\frac{3}{4}$ in. thick. The Doctor informs us, that this conductor cost 1s. 7d. per yard, and the entire cost did not exceed 3l. 10s.; on this point I feel confident that the Doctor is, by some means, wrongly informed, as that size and thickness of copper piping will weigh about 1 lb. per foot; consequently, if we take the price at 1s. per lb., which is a low price, the piping itself would come to 8l. 10s.; workmen's time in screwing each end of the 17 pipes, not less than 10s.; expense of 17 holdfasts for fixing the same, and the workmen's time, say, 1l. 10s.—making the whole expense 10l. 10s., and very cheap at that price, as 19 of your readers out of 20 will think, as a great many of them well know the price of copper piping, and the labour of fixing it to such a high spire. The undersigned has made and fitted upwards of 1000 lightning conductors within the last 12 years, and the price per foot has been, on an average, 1s. fitted complete; about 800 of them have been fitted to shipping, and all of them made of copper wire-ropes, about $\frac{1}{2}$ in. diameter. The advantages of copper wire-rope over anything else, I have found to be great, in consequence of perfect continuity in one length, and the economy in fixing them, besides the great cog-

IMPAIRED CONSTITUTIONS, DILATE, INDIGESTION, AND BILE, CURED BY HOLLOWAY'S PILLS.—The well-known efficacy of these invaluable pills in the cure of all constitutions or weakness, arising from any cause whatever, or who are subject to impaired action of the bowels, and who are afflicted with any of the various diseases of the blood, and peculiar properties act so wonderfully, should have immediate recourse to them. Their regulating the constitution, that health and strength are soon restored, purifying the blood and invigorating the system, the cure of headaches, liver complaints, and all the diseases of the stomach, and are a certain remedy in all cases. Sold by all druggists, and disorders of the bowels, the establishment, 24, Strand, London.

TOUGHENED CAST-IRON—STIRLING'S PATENT.

No. 1.—For SMALL AND MEDIUM CASTINGS.
No. 2.—For HEAVY CASTINGS.
No. 3 (Extra).—For ROLLS, HEAVY SHAFTS, AND VERY HEAVY CASTINGS.
The above is by far the strongest Cast-iron made, and is now being extensively used where strong castings are required.
Further particulars may be obtained on application to
Messrs. GARDEN & MACANDREW,
37, Queen-street, Cheapside, from whom also the IRON can be PROCURED.

IMPROVED WIRE ROPE.—The UNDERSIGNED, in tendering their best thanks for the liberal support they have hitherto received, respectfully solicit attention to the vast IMPROVEMENTS which new machinery and attention has enabled them to effect in the MANUFACTURE OF ANDREW SMITH'S PATENT WIRE ROPE, more particularly his FLAT ROPE, which they can now produce of a description far superior to any previously offered to the public.
WILKINS & WEATHERLY,
Patent Wire Rope Works, 39, High-street, Wapping, London.

PATENT IMPROVEMENTS IN CHRONOMETERS, WATCHES AND CLOCKS.

E. J. DENT, 42, Strand; 33, Cockspur-street; 34, Royal Exchange (clock tower area).
Watch and Clock Maker, BY APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in four holes, 6s. each; in gold cases, from 40s. to £10 extra. Gold horizontal watches, with gold dials, from 8s. to 12s. each.
DENT'S PATENT DIPLIODESCOPE,

or Meridian Instrument, is now ready for delivery.—Pamphlets containing a description and directions for its use 1s. each, but to customers gratis.

THE PATENT OFFICE AND DESIGNS REGISTRY.

No. 210, STRAND, LONDON.
INVENTORS will receive (gratis), on application, the OFFICIAL CIRCULAR OF INFORMATION, detailing the eligible course for PROTECTION OF INVENTIONS AND DESIGNS, with Reduced Scale of Fees.
Messrs. F. W. CAMPIN and CO. offer their services, and the benefit of many years experience, in SECURING PATENTS AND REGISTRATIONS OF DESIGNS, with due regard to VALUITY, economy, and dispatch, assisted by scientific men of repute.

Also, in MECHANICAL AND ENGINEERING DRAWINGS, whether connected with Patents, Railways, or otherwise, by a staff of first-rate draftsmen.
Application personally, or by letter, to F. W. Campin and Co., No. 210, Strand (corner of Essex-street).

New Patents.

[From the *Mechanics' Magazine* of this day.]

SPECIFICATIONS ENROLLED DURING THE PAST WEEK.

J. BANISTER, Birmingham, manufacturer: For a certain improvement or certain improvements in tubes for locomotive and other boilers. The improvements which are sought to be secured under this patent relate—first, to the manufacture of compound tubes for locomotive and other boilers; and, second, to a mode of uniting tubes of copper, brass, and other alloys of copper.—1. The compound tubes are each made of three separate tubes of copper, iron, and brass, which are of different diameters, in order that they may fit one within the other, the copper outside, the brass inside, and the iron between the two. The compound tube is then placed, while in an annealing state, upon a tapering mandril, and drawn through a series of dies, where the different metals will be brought into close contact with each other. A tube thus formed will have the advantage of presenting copper to the action of water, brass to the action of the fire, and will possess the rigidity of iron. When the heat is to pass over, instead of through, the tubes, then, of course, the brass must be placed outside and the copper inside.—2. The mode of uniting tubes of copper or brass, and the alloys of copper, is as follows:—The metal plate is bent into the form of a tube, and the edges thus brought together are chamfered away by an angular file, so as to form a kind of trough. The inside of the tube is then filled with sand, and the outside covered with the same substance, with the exception of the trough. The tube is heated to a red heat, and melted metal of the same nature is poured into the trough, the edges whereof will be partly fused, and therefore subsequently united. The superfluous metal is afterwards removed by a circular saw or otherwise.
Claims.—1. The manufacture of compound tubes for locomotive and other boilers.—2. The mode of joining the seams of tubes, of copper, brass, or any other of the alloy of copper, for locomotive and other boilers.

W. S. GILLET, Esq., Wilton-street, Grosvenor-place: For improvements in packing pistons, stuffing-boxes, slides, and other parts of machinery, and in forming bearings, and in making cylinders and other forms of metal. This invention consists in forming the packings of pistons of a number of "dished discs," of any soft or anti-friction metal interposed between top and bottom ends of brass, or some other hard metal. The discs are pressed or held together by screwing down the top plate of the piston, whereby it bears upon the exterior edges of the discs, and keeps them in contact with the inner circumference of the cylinder, until they lose their dished form and become flat; after which they may be removed, and fresh ones substituted in their stead. In packing rods and making stuffing-boxes, it is, of course, the inner edges of the discs that are dished, and against which the plate presses. The patentee states, that it will be obvious to every practical engineer, that the same principle of construction may be applied so as to serve, at the same time, as stuffing-boxes and bearings for axles and machinery in general. To make cylinders and other forms of metal where great strength is required, but which are not subject to wear, such as hydrostatic cylinders, it is proposed to use an internal cylinder (although not absolutely necessary), around which are placed a number of dished discs of metal, held together by top and bottom plates screwed together.
Claims.—Employing a series of dished discs, or plates of metal, for packing pistons, stuffing-boxes, slides, and other parts of machinery, and for forming bearings, and for making cylinders and other forms of metal.

JOSEPH JOHNSON, Huddersfield, York, bricklayer; and JOE CLIFFE, of the same place, iron-founder: For improvements in furnaces, or in the means of preventing smoke. The patentees describe and claim—1. A peculiar construction of furnaces for heating atmospheric air, by introducing it through a hollow chamber, or flat pipe, placed immediately over the furnace, or in any other convenient part thereof, into a hollow arch or chamber, constructed near the bridge of the furnace, and causing it to issue therefrom, and commingle with the products of combustion, and consequently consume them by supplying them with the necessary quantity of oxygen. The incombustible and noxious vapours are exhausted by a fan through a chamber, wherein they are subjected to the action of water, or other chemical agent, and absorbed.—2. The employment of the hollow arch or chamber, either in combination with the preceding arrangement, or with any other, for effecting a like purpose.—3. The employment of a second hollow bridge, in combination with the preceding arrangement, which is supplied with heated atmospheric air, whence it escapes, and mingles with the products of combustion in the flue.

LIST OF PATENTS GRANTED DURING THE PAST WEEK.

A. F. Remond, of Birmingham, for improvements in the manufacture of envelopes.
E. A. Chamery, of Paris, for improvements in the manufacture of boilers and of pipes of malleable substances, as well as of elastic matter.
E. Reid, of Glasgow, manufacturer, for certain improvements in propelling.
C. Dinalede, of Newcastle-upon-Tyne, dentist, for improvements in the manufacture of artificial palates and gums, and mode of setting or fixing natural and artificial teeth.
J. Turner, of Birmingham, engineer, and J. Hardwick, of the same place, for a certain improvement or certain improvements in the construction and setting of steam-boilers.
G. Atwood, of Birmingham, copper roller manufacturer, for a new or improved method of making tubing of copper or alloys of copper.
G. de Buge, of Arthur-street, London, engineer, for certain improvements in locomotive and other steam-engines, and also in buffers for railway purposes.
J. D. Harris, of Leicester, manufacturer, for improvements in the manufacture of looped fabrics.
W. Buckwell, of the Artificial Granite Works, Battersea, civil engineer, and G. Fisher, of the Taffrail Railway, Cardiff, civil engineer, for improvements in the construction and means of applying carriage and certain other springs.
W. H. Ashurst, of the Old Jewry, gentleman, for improvements in the manufacturing of varnishes.
T. Ross, of Coleman-street, gentleman, for improvements in machinery for raising a pile upon woven and felted fabrics.
A. M. Marbe, of Birmingham, chemist, for an improved manufacture of vegetable fluid to be used in the production of artificial light, and in lamps or burners for consuming the same; which vegetable fluid is also applicable to the manufacture of lacker or varnish.
W. Hargreaves, the younger, of Bradford, York, iron-founder, for certain improvements in the means of consuming smoke, parts of which improvements are also applicable to the generating of steam.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

J. Seddon and J. Eckersley, Little Bolton, cop drier.
J. P. Abbott, S. W. Wade, and R. Walshaw, Liverpool, chronometer and watchmakers, dead-beat chronometer.
J. Hendry and J. Murphy, Gifford-street, King'sland-road, refrigerator.
L. Smallwood, Dankerque, improved tire.
Scowen and White, 9, Noble-street, Cheapside, aptandium collar.
G. K. Matthews, Charing-cross, London, pneumatic monitor.
G. F. Hopkins, Birmingham, nut-cracker.
Francis Herbert Wainman, Brixton, parabolic reflector for illuminating transparent objects for a microscope.

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Buddle's West Hartley 14 6—Carr's Hartley 14 6—East Adair's Main 13—Hollywell 14 6—North Percy Hartley 14 3—Ord's Redheugh 12 6—Ravensworth West Hartley 14 6—Tandfield Moor 14 6—West Hartley 14—Wylam 14 6—Windsor's Fens 13 3—Wall's End Burraton Killingworth 15—Clemell 14 9—Gibson 14 6—Gosforth 15 6—Heaton Killingworth 15—Clemell 14 9—Morrison 15 3—Northumberland 15—Original Gibson 15—Hoburn 15—Riddell 15 3—Washington 14 9—Eden Main 16 3—Lambton Primrose 16 6—Bell 15 9—Belmont 16 6—Bradley 17 3—Hutton 17 3—Haswell 17 9—Keepler 16 6—Lambton 17—Russell's Hutton 17 3—Stewart's 17 3—Cassop 16 6—Denison 15 6—Heugh Hall 16—Kelsoe 17—South Hartlepool 16 9—Whitworth 14 6—Caradon 16 6—16 9—Cowdon Tens 15 6—Gordon 15—Maclean's Tens 15—Seymour Tens 16—South Durham 15 9—Tees 17 6—Bircroft Grange 20—Derwentwater Hartley 14 6—Siddney's Hartley 15.—Ships at market, 164; sold, 134.
WEDNESDAY.—Buddle's West Hartley 14 6—Carr's Hartley 14 6—East Adair's Main 13—Hollywell 15—North Percy Hartley 14 3—Ord's Redheugh 13—Ravensworth West Hartley 14 6—Tandfield Moor 14—Tandfield Moor But's 13 3—Townley 13 6—West Hartley 14—Wall's End Burraton Killingworth 15—Clemell 14 9—Gibson 14 6—Gosforth 15 6—Ferry 15—Riddell 15 3—Washington 15—Eden Main 16 6—Lambton Primrose 16 9—Bell 16—Bradley 17 3—Cresswell 16—Keepler 16 6—Lambton 17—Caradon 16 6—Cassop 16 6—Denison 15 6—South Hartlepool 16 9—Thornley 16 6—Whitworth 14 3—Tees 17 6—Langenoch 21.—Ships at market, 173; sold, 66.
FRIDAY.—Carr's Hartley 14 6—Adair's Main 13—Ravensworth's West Hartley 14 6—Townley 13 6—West Hartley 14 6—Wall's End Burraton Killingworth 15 6—Gosforth 16—Eden Main 17 6—Maclean's Tens 15 3—Tees 15 6—Bircroft Grange 20—Garnant Stone 23.—Ships at market, 26; sold, 23.

CARADON VALE MINE.

SAINT IVE, NEAR LISKEARD, CORNWALL.

PURSEY—Mr. John Stephens, St. Ives, Liskeard; Mr. Charles Collins, Exeter.

BANKERS—Mr. Sanders, Exeter; the Devon and Cornwall Bank, Exeter and Liskeard.
This mine is situated in the parish of SAINT IVE, near LISKEARD, CORNWALL, and was worked upon by several poor experienced miners a short time since, to develop that which they felt convinced existed there—viz., rich copper ore. They drove an adit 70 fms. to the hill, and sunk a winze 12 or 15 fms. under that adit to cut the lode, when to their dismay they were completely impeded by the large quantity of water issuing from the lode, they having only water-barrels to draw up the same; sufficient was, however, seen to know that rich yellow and black copper ore existed against the cross-course. There are seven lodes, well defined, and carrying the most extraordinary gossan that can be seen, with rich peach, prill, felspar, and ore, and every other qualification to convince miners that great riches exist beneath.

It is proposed that the mine be divided into 1536 shares, at FIVE SHILLINGS PER SHARE, being the first deposit, and the liability of each shareholder is not likely to exceed 4d. per share, as it is not expected more than £1 per share will be required. The calls, too, are moderately fixed, not to exceed 5s. per share every two months.

A large number of the shares are already taken up.
Application for the remainder may be made to Mr. Thomas Sanford, Exeter; Mr. John Stephens, St. Ives, Liskeard; Mr. Edward Suter, Exeter; Mr. James Timewell, Exeter; Mr. John Seymour, St. Cleer, Liskeard; and Mr. Henry Vatcher, Exeter.

CARADON VALE MINE.

Agreeably with your request, I have inspected the above mine, and report as follows:—A cross-cut adit has been driven northward from its mouth 80 fathoms, where a very promising lode is cut, averaging from 1 to 2 and 3 feet wide. The lode is composed of gossan, spar, peach, iron pyrites, with stains of carbonate of copper, located in a beautiful hillside strata, at a little distance from the granite range of Caradon, and is bounded on the north by Ickenbury, and on the south by South Caradon Mines. The lode is one of great promise, and its situation most favourable; and, on the whole, I judge this adventure to be every way worthy the attention of mining capitalists. ROBERT DUNSTAN.
West Caradon, Feb. 26, 1850.

CARADON VALE MINE.

Notice is hereby given, that NO FURTHER APPLICATIONS FOR SHARES will be received after Thursday, the 25th day of APRIL, instant.

Exeter, April 4, 1850. CHARLES COLLINS, Purser.

ROCHE ROCK TIN MINING COMPANY.

Capital £20,000, in 5000 shares, of £1 each.

No further call will be required, and no liabilities can be incurred.

NOW AT WORK ON THE COST-BOOK SYSTEM.

WILLIAM WILSON, Esq., JOHN CREFF, Esq., THOMAS FULLER, Esq., JAMES WYATT, Esq., (With power to add to their number.)

BANKERS—The London and County Joint-Stock Bank.

MANAGER OF THE MINE—Captain Finch.

SECRETARY—John Mariner, Esq.

OFFICES—1, ROYAL EXCHANGE BUILDINGS, LONDON.

This valuable MINE is situated in the parish of ROCHE, near St. Austell, CORNWALL, and is held under a lease of 21 years, at a royalty of 1-20th. It is bounded on the south-west by Old Beam Mine, and on the south-east by the Great Rocks Tin Mines—two of the largest and richest mines ever worked in this district; the attested profits from which exceed £250,000—both of which are now at work. The sett is in the junction of the hills and granite, which greatly enhances its value.

There are five well-known lodes of a very productive description, two of which are now being worked on; they are 3 feet wide, and carry a leader of solid tin 4 inches thick—the average produce being 6 cwt. of tin to the 100 sacks of work. The mine is worked at present by water-power; the shaft is 10 fathoms deep, and cross cuts are driven to intersect the north and south lodes. The tin is of the finest quality, and realises the highest price in the market. Tribute pitches are now set at 10s. in the £1. There are at present now working one 14-foot water-wheel, with three heads of stamps, one 16-foot wheel, with six heads, one 10-foot wheel, with three heads, and 12-foot wheel, with three heads, one 16-foot wheel, and a 10-foot wheel, with all necessary flat-rods and dressing floors. It is proposed to erect a 30-inch steam-engine, and put the mine down 40 fathoms, when tin ground will be laid open to make large returns. Offers have been made by the miners to take tribute pitches at 5s. in the £1, paying all returning charges when at that depth—consequently, profits will be made available for regular dividends at a large percentage. It has been estimated that the capital will be amply sufficient to put the mine in a paying state, and which can be done in about three months. The above capital is required to purchase powerful steam-engines, in order to sink the shaft to a greater depth, which will lay open a valuable run of tin lodes, and thereby increase the dividends without the slightest risk; in confirmation of which, see the reports forwarded by practical miners in the neighbourhood, which can be seen at the office, where specimens and all further particulars may be obtained of the secretary.

CAPTAIN PHILIP FINCH'S REPORT.

Sir,—Agreeably with your wish, I have inspected Roche Rock Mine. Being a native of this place, I have had frequent opportunities of making myself well acquainted with it. It is situated in one of the best localities for mining in the county, as may be proved by the Great Rocks and Beam Mines, which are adjoining. I do not consider it any speculation, as the lodes are now cut, and producing very rich work for tin; it is exactly between the hills and granite, and where most all tin lodes make rich. A shaft is sunk at the south part of the sett, and connected with the water-engine by flat-rods; in driving the cross-cut, two lodes were discovered of very excellent quality—one of them producing 6 cwt. of tin to the 100 sacks of work—the other about 4 cwt. This is all from the back of the 10 fms. level. The north lode is 3 ft. wide, with a leader of solid tin, from 3 to 4 in. wide, and carrying tin throughout; the south lode is not so large, but very good; the produce at present exceeds the average of tin mines. My opinion of this mine, as a practical miner, I must say, is, that, looking at the favourable locality, the quantity of lodes it contains, and produce from the present shallow depth, the advantage of having the stamps close on the spot, the present lodes open for inspection, together with the easy access to it, and the small cost of working it, that it will amply remunerate any party, and pay handsome dividends at once.

The above mine, to which the reports refer, will be worked on the "Cost-book System," which relieves shareholders from all liabilities beyond the amount of their shares.

Applications for shares to be made to the secretary, at the office, who will give certificates for the same.

WHEEL SAMSON CONSOLS GOLD, SILVER, AND COPPER MINE.

In 10,000 shares, of £1 each—all paid.

No calls.—No liabilities.—No forfeiture of shares.

OFFICES—No. 15, FISH-STREET-HILL, LONDON.

The MINE is situated on the north-east coast of CORNWALL. Large branches from the lode run out to the sea, in consequence of which the whole of the lode is completely drained to the depth of from 70 to 80 fathoms—all of which form backs by the rising of the cliffs, and may be worked away by levels from the sea shore, obviating the necessity of erecting machinery or sinking engine-shafts—the two most formidable features of outlay in all ordinary mining operations; and affording an opportunity of opening the mine, and raising as much work or tin as the lode for £1000, as would, in ordinary instances, involve an outlay of from £15,000 to £20,000.

The sett is very extensive. The lode is full 6 feet in width, and has been opened on the back by shoddy pits, to ascertain its course and continuous character. The branches have been driven upon for many fathoms. The gossan and the spar are full of large spots of gold, and the whole of the lode is exceedingly rich for silver and copper. An average assay, made by Mr. Johnson, produced—copper, 91 per cent; silver, 340 cwt. per ton of ore; gold, 11 dwts. 43 grs.; while some samples have been obtained exceeding 1500 cwt. of silver to the ton of ore, and some upwards of 5 cwt. of gold.

Considerable outlay has been made by the present lessee to ascertain the course and other peculiarities of the lode; and such being now satisfactorily obtained, the future operations will be confined to entering the cliff by driving at various levels, upon the principal branch (which is 5 feet wide) towards the junction, where there is not the slightest doubt of a very rich vein of ore. The junction takes place about 60 fms. inland; by driving an adit from the level of the sea, backs will be obtained of from 70 and 80 fathoms; and, as the branches are found to carry ore to within 15 fathoms of the surface, it may be calculated that there are 60 fathoms of ground to be worked away, by levels only, without a shaft or any machinery. It is, therefore, confidently expected that considerably less than the proposed capital will now put the mine in full and effective operation.

The following opinions, from the best authorities on ores and mines, are fully confirmatory of the great value of the Wheel Samson Mine:—

Mr. Percival Johnson, of the Assay Office, Hatton-garden, the manager of the Tamar Mines and Beeralston Smelting Works, states that "he knows the Wheel Samson perfectly, having frequently and minutely examined the property, with the intention of obtaining the sett, prior to its coming into the possession of the present lessee. That, from such examinations, he was very desirous of obtaining the property, but did not succeed, in consequence of its being under agreement of lease to other parties. That he had himself frequently broken ores from the lode, carrying more than 1000 cwt. of silver to the ton; and that the gossan and spar were full of spots of gold. That boulders, washed out of the lode by the action of the waves, were frequently to be picked up on the sea shore of the same rich quality. That the whole by me formed by the branches of the lode, causing the crumbling of the cliff at the lode split up on running out into the cliff, in consequence of a hard piece of ground; but that the country changed at a few fathoms inland, where the lode united, and passed through a very rich and well laminated claystone, most congenial for the existence of minerals; that at such junction the mining operations ought to be directed—that the working of this mine would be attended with but trifling expense, as compared with ordinary mining operations—that the character of the ground, and the quality of the ores extracted from the branches, justify the most sanguine expectations; that he considered its highly valuable and very extraordinary mind, well worthy of being prosecuted, offering most encouraging prospects, and one which he should not have allowed to slip through his fingers had he not been so fully occupied in his other mines and smelting operations at Beeralston, on the opposite side of the county."

Capt. Spargo, the mining agent under whom the late operations have been conducted, also reports as follows:—"I feel myself compelled to speak with great caution as to this lode, lest I should be considered to have formed extravagant views of its extraordinary quality. I have been a miner all my lifetime, and for the last five years have been constantly engaged in surveying mines for numerous parties. I have never before seen ores so rich in appearance; I send you a few barrels of the ore taken from the branch, which we are driving, which you can have assayed, and they will speak for themselves. [These ores are the ones assayed by Mr. Johnson, giving 340 cwt. of silver to the ton.]—Whatever they may be, I have no doubt of the existence of large quantities of a similar quality. I have never seen a lode of finer form; and as it would be contrary to all experience to suppose that a different quality of ore would be produced from the main lode to that found in the branches, I cannot venture to speak of, or to calculate, the immense riches which may be produced from this lode when worked at a proper depth. The branch of the lode, upon which we are now driving towards the junction, is from 5 to 6 ft. wide—a finer or more regular lode was never seen by man; and there cannot be the slightest doubt of a mass of ore when we come to the junction of the branches, and obtain proper levels by driving from the sea shore. We shall then have from 60 to 70 fms. of backs to the lode, and this can be all worked away without sinking a shaft or erecting any machinery."

Applications for prospectuses and shares to be addressed to the secretary, at the offices of the company.

SECOND-HAND SCIENTIFIC BOOKS.

Just published, a LIST OF SCIENTIFIC BOOKS, in the various departments of Engineering (including Mining), Mechanical, Mathematical, and Nautical Science; also Arts, Trades, and Manufactures—offered at very reduced prices by E. & F. N. SPON, 5, Groom's-court, Commercial-road East, London.—Forwarded to all parts of Great Britain on receipt of one postage stamp.

ACCIDENTAL DEATH INSURANCE COMPANY.

(Completely Registered under the Act 7 and 8, Victoria, c. 110).

7, BANK BUILDINGS, LOTHBURY, LONDON.

(ADJOINING THE GOVERNMENT ANNUITY OFFICE, OLD JEWRY).

DIRECTORS.

KENYON S. PARKER, Esq., Q.C., Lincoln's Inn, CHAIRMAN.

George I. Raymond Barker, Esq., Daglingworth, near Cirencester.

The Lord Thomas P. Clinton, Carlton Villas, Edgware-road.

Richard Fawkes, Esq., Laurel Lodge, Barnes.

The Lord A. Edwin Hill, M.P., Norwood-park, Southwell, Notts.

Thomas Knox Holmes, Esq., Flutyer-street, Westminster.

Hon. Richard E. Howard, Temple.

John Phillips Judd, Esq., 6, Mark-lane.

Capt. Lowther, M.P., 1st Life Guards.

Henry Blair Mayne, Esq., 3, Chester-street, Grosvenor-place.

James Mitchell, Esq., 58, Chancery-lane.

Charles Snell Paris, Esq., Salvador House, Bishopsgate-street.

TAUSTERS.—George Wodehouse Currie, Esq., 29, Cornhill.

Montgomery Gladstone, Esq., Manchester.

Kanyon Stevens Parker, Q.C., Lincoln's Inn.

AUDITORS.—Thomas A. Mitchell, Esq., M.P., 9, New Broad-street.

Robert Tower, Esq., Salvador House, Bishopsgate-street.

Thomas M. Wagonin, Esq., 57, Old Broad-street.

BANKERS.—Messrs. Moore, Currie and Co., 29, Cornhill.

SOLICITORS.—Messrs. Malby and Robinson, 7, Bank-buildings.

CONSULTING ACTUARY—Edward Riley, Esq., F.R.S.A.

SECRETARY—William Young.

CLASS I.—2s. 6d. to insure £100.

CLASS II.—2s. 6d. to insure £50.

CLASS III.—2s. 6d. to 10s. 6d. to insure £50.

The numerous casualties in mines, collieries, &c., which, by depriving the workman of his life, plunge his family into misery and want, have given rise to this company, whose rates are so low as to bring the benefits of insurance within the reach of the humblest classes. The directors invite the attention of the owners and lessees of mines and collieries, and others employing large bodies of men, to the principle of insuring them in the mass—in which case an abatement may be made from the above rates.

WILLIAM YOUNG, Secretary.

IMPROVED LIFTING JACKS.

MANUFACTURED BY

W. AND J. GALLOWAY,

PATENT RIVET WORKS,

MANCHESTER.

* * * The attention of parties who employ

Lifting Jacks,

is respectfully requested to the superiority of those annexed, over those hitherto in use.

BY HER MAJESTY'S ROYAL LETTERS PATENT.

IMPORTANT TO RAILWAY COMPANIES, CARRIERS, AND OTHERS.

ROWLAND BROTHERHOOD'S TILT, FOR COVERING

RAILWAY TRUCKS, WAGGONS, &c.

This invention allows of trucks or wagons being covered or uncovered with surprising ease and facility, so that one porter can uncover two trucks in the space of a minute, and two can re-cover both in the same time. It allows of a small portion, or the whole area of the truck, being uncovered, and affords great facility for loading and unloading, and protecting the goods in these operations, as well as in the course of transit. It can be secured by locks and keys, thus rendering merchandise secure from plunder. It is cheap in its construction, can be applied to railway trucks and wagons generally, and is easily attached or detached. It runs smoothly through the air at high speeds, and against head winds.

This Tilt has been in use on different parts of the broad gauge during the winter, and has been found to work remarkably well in the severest weather. Experienced and practical persons, who have the management of large goods' stations, and have seen these tilts in working, and who know the great wear and tear of cloths, tarpauling, &c., and the inconvenience of existing modes for goods' covering, are of opinion that these Tilt will be of great utility in railway service. The patentee is himself prepared either to construct or, on moderate terms, to license parties to construct his patent Tilt.

Applications to be addressed to R. Brotherhood, Railway-Works, Clippenham, Wilts.

No. 1.

This shows the side elevation of a waggon, with the tilt closed and fastened down.

No. 2.

This shows the tilt as applied to a box, waggon, or long-sided truck, with longitudinal bearers.

END VIEW

No. 3.

This is an end elevation of the same on a larger scale, showing the pin and fan which supports and carries over the longitudinal bearers to which the cloth is attached, and which when open lies compactly folded along the side of the truck, leaving the whole area of the truck open for receiving or discharging its contents by crane or otherwise.

The tilt is applied to box, or low-sided trucks, with curved longitudinal bearers.

No. 4.

This is an end elevation of the same, showing the tilt partially closed, so that the whole or any portion of the truck can be open at pleasure, affording means of protection for part of the merchandise, whilst the other is being loaded or unloaded, or the truck may be used entirely uncovered, without the tilt in the least interfering.

A single tooth.....from £60 6

A complete set....." 50 0

Cleaning and removing the tar from the teeth....." 0 6

Stopping carious teeth with a cement which does not discolour....." 0 3